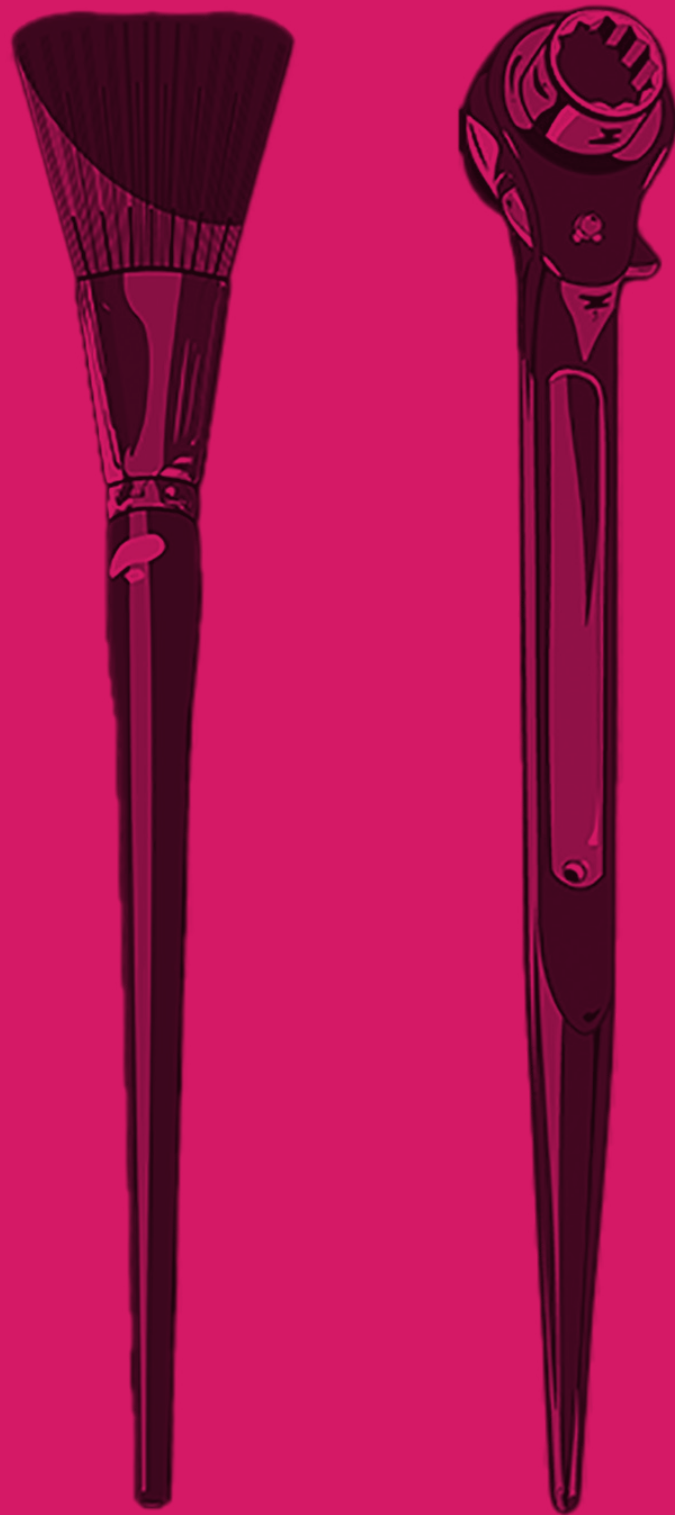


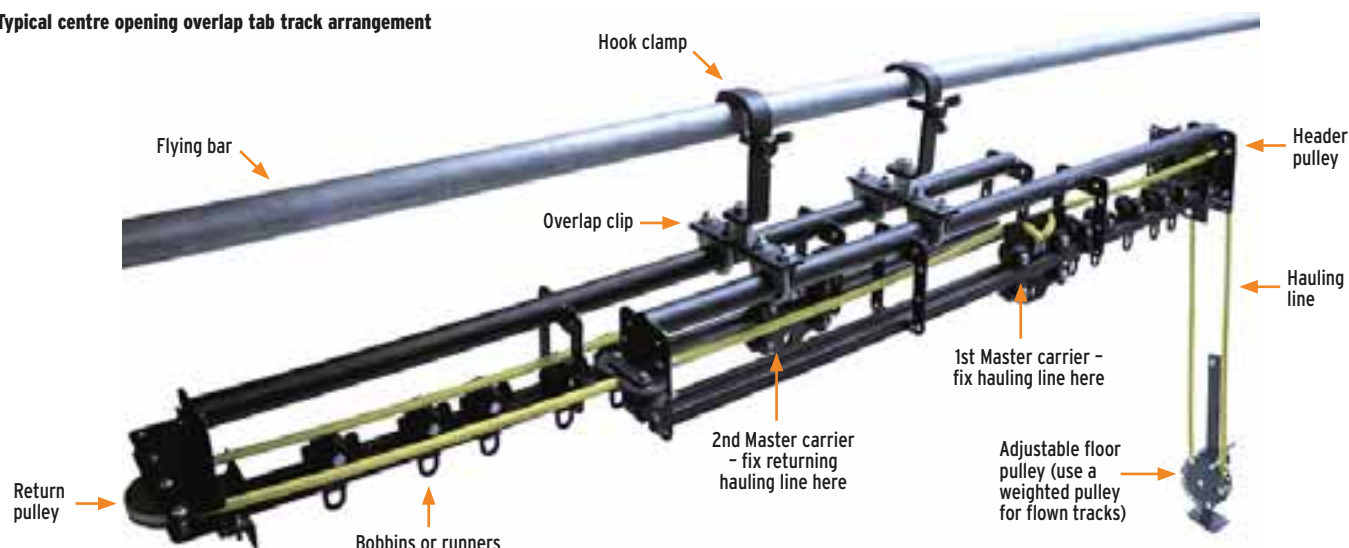
# Tracks, Tubes & Castors



# FLINTS

*The one-stop-shop that delivers to your door*

Typical centre opening overlap tab track arrangement



## Tab Track Terminology

At first glance a tab track may appear complicated but all the components from each manufacturer have basically the same functions. We have described them below to help you choose but, if you prefer, just phone us and we will calculate all your component needs.

**Bobbins or Runners:** These run along the track, normally on small wheels, and carry the drapes. Generally, they are spaced at around 250 - 300 mm apart.

**Rearfold Runners:** Runners with an attachment that grips the control line [until offstage] to enable a cloth to move off stage without gathering from the leading edge. Only normally used with painted cloths.

**Master Runners:** The master runner is the lead runner. It will normally have a clamping plate to grip the control cord. For a centre opening track you will need two master runners. Clamp the handline to one runner, then thread it around the return pulley at the end of the track and clamp the returning part of the cord to the other master runner. Even if the drapes are just to be pulled along it is wise to have a master runner at the leading edges as this runner will take a greater strain than ordinary bobbins. Alternatively, mount two ordinary bobbins close together to share the strain.

**Overlap Arms:** Some master runners will take an overlap arm which allows centre opening drapes to overlap. The alternative is to overlap the tracks but to do this you will need overlap clips plus offset plates to ensure the hook clamps align with the flying bar.

**Header Pulley:** This double sheave vertically aligns pulley bolts to the operator end of the track. Sometimes two designs are available, one for overlap tracks and one for single tracks.

**Return Pulley:** Horizontal pulley bolted to the far end of the track.

**Floor Pulley:** These pulleys are fixed to the floor and the sheave can be adjusted to put tension in the cord. If your track needs to fly out then choose a foot-stirrup pulley or a weighted pulley. If you choose a weighted pulley ensure that you use a polyester handline and that regular checks are made to guard against chafe.

**Handline:** Tracks take 6 or 8 mm diameter handlines. Nowadays most people choose matt black polyester line rather than jute sash. If you are using a weighted pulley do not use jute sash. For the track to operate the line needs to be tied [or clamped] to form a loop. The best place to do this is just behind a master carrier rope clamp as this position never has to pass through a pulley.

## How to Cord Up a Tab Track

Position the assembled track at a comfortable working height. The cording principle is based on a long loop of cord, the loop being formed by clamping both the ends onto the "Cord End Master Carrier". If the track is "centre opening" then the other "slave" master carrier will be clamped to the returning cord. To cord a typical centre opening track, position the master carriers in the "Tabs Closed" position [centre stage]. Loosely tie or clamp one end of the cord onto the "Cord End Master Carrier" and thread the cord around the horizontal return pulley then back along the track passing through the rope clamp on the "slave master carrier". Loosely tighten the clamp plate and continue with the cord to the header pulley. Take it over the header pulley, around the foot-stirrup or floor-mounted pulley and back over the other sheave on the header pulley and finally back to the "Cord End Master Carrier". Ensure you have the correct drop for the floor mounted pulley and then loosely clamp the rope in place. Don't chop off the excess just yet! Take the track to its operational position. Try the track to ensure it is corded correctly then tighten the rope clamps and cut off the excess cord.

[Based loosely on an extract from the Unitrack Manual].

## Sound Advice

Modern steel scenery clad in 4 mm ply can act as a sounding board and may amplify any track noise if the track is directly attached to the steel. "L" shaped corners in scenery such as pelmets or soffits also have an amplifying effect and should be avoided if possible.

## Shipping

We used to have problems shipping lengths between 3 and 6m long, however these are now largely resolved, but it's worth noting a 3 m length has the benefit of being able to fit into most Transit-sized vans. We carry 2 m lengths as standard in our hire stock which can be joined using Joint Sets. For full details of our delivery services see back of catalogue.

## Not sure what track system you have?

Flints has a wide experience of tab tracks based on forty-years of theatre work. We can normally recognise a component from a digital photo or sketch. Even very old components can often be supplied.

If you have a troublesome track we can provide remote assistance, or if required we can visit your stage to either effect immediate repairs, or suggest a course of action. Below we have listed some of the common components and spares that we can supply.

## MEDIUM-DUTY TRACKS

### Triple E 2-Way Track

This well proven track from Triple E is designed for lightweight curtains and can be used instead of domestic tracking to provide the reliable service expected from Triple E products. The track is available in lengths up to 6.1 m [20ft] and can be provided prerolled for curved installations. 2Way has a continuous suspension slot along the top to take Triple E fittings, or it can be screwed directly to a soffit by using ceiling clips.



The track is quickly joined with a steel plate and grub screws locating in the top slot while two roll pins provide alignment of the running surfaces, see left. The runners are designed to take ties or twin hooks but steel wire hooks are also available for use with Rufflette tapes. This track is not available as a corded version.

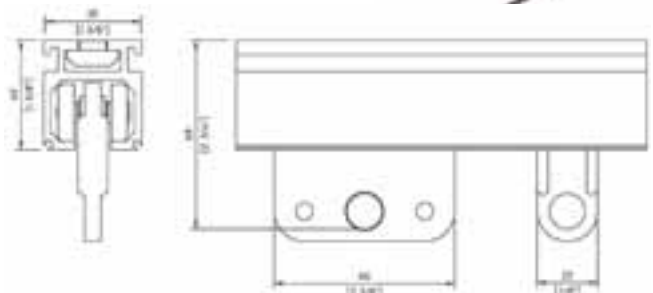
- ✓ Smart good looks - can be custom powder coated on request.
- ✓ Ideal for pubs, clubs and small performance venues
- ✓ Good choice for cycloramas in small photographic, TV and drama studios, and exhibition or office environments.

✓ Use it for "on scenery" drapes

✓ Can take up to 88 kg Uniform Distributed Loads at 1 m centres

✗ Not available corded

✗ Not suitable for touring



code	description	price
EEE2W01B	Straight Track up to 6 m long black [per m]	£28.00
EEE2W01S	Straight Track up to 6 m long silver [per m]	£19.00
EEE2W01BC75090	Curved Track 90° section 750 mm radius black	£84.70
EEE2W01SC75090	Curved Track 90° section 750 mm radius silver	£63.10
EEE2W01BC100090	Curved Track 90° section 1 m radius black	£95.90
EEE2W01SC100090	Curved Track 90° section 1 m radius silver	£70.70
EEE2W01BC	Curved Track special to order black [per m]	£41.00
EEE2W01SC	Curved Track special to order silver [per m]	£32.00
EEE2W05	Joint Plate with two pins	£12.25
EEE2W24	Endstop [black]	£8.00

### 2-Way Runners



Master Runner

Standard Runner

code	description	price
EEE2W06P	Plain Wheel Runner	£4.00
EEE2W06C	Ball Raced Wheel Runner	£7.00
EEE2W07W	Master Runner [WLL 30 kg no cord clamp]	£13.00
EEE2W29	Wire S-Hooks [for use with Rufflette tapes]	£1.20

### 2-Way Mounting



code	description	price
EEEM8ERAILNUT	M8 Attachment Nut	£1.35
EEEERL1402	Hook Clamp for 50 mm tube/truss	£20.00
EEE2W30	Ceiling Mount Clamps [5 pairs]	£14.00
EEETRA1601	NEW Wall Bracket 300 mm	£45.00
EEETRA1602	NEW Wall Bracket 500 mm	£62.00
EEEERL18	Studding set [M8x150 direct to track]	£5.00

### Halls T60 Anglia Track

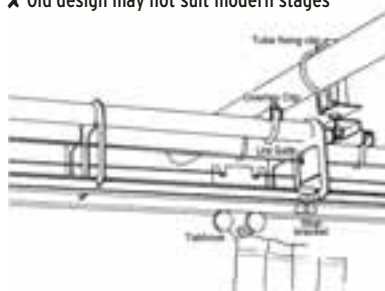
Designed to meet the requirements of most small- and medium-sized stages and television and video facilities with cycloramas. Curtains can be hand-pulled, electrically or hand-winch or just walked along. The maximum recommended length for a single wipe track is 9 m or 18 m for an overlapped track. Single tracks can be easily suspended from bars by using the T60 universal fittings bolted to Hook Clamps [page 373]. Overlap tracks should use the "Z" brackets, see left, to centre the track on the bar. The tracks can be supplied in 45° and 90° curved sections. If you need to cut down a track onsite to fit to an exact dimension then purchase a Modular Track Clip, see left, to reinstate the end plate after cutting. Please phone for a complete list of components and prices.

✓ Often installed in school stages

✓ Old design, so tried and tested

✗ Slightly fiddly joint bolts

✗ Old design may not suit modern stages



code	description	price
HALT60576	Straight Track 500 mm section	£35.96
HALT60580	Straight Track 1 m section	£47.20
HALT60584	Straight Track 2 m section	£78.62
HALT60586	Straight Track 3 m section [max] [other lengths and curved sections available, please phone for details]	£104.60
HALT610931	Modular Track Clip	£45.08
HALT63756	Joint Bolts [per 10] [2 shouldered + 2 hex sets: nuts, washers – enough for one joint.]	£19.31
HALT65730	Endstops [per 2]	£16.90

## Halls T60 Anglia Runners



Master Carrier

Tab Hooks

code	description	price
HALT63750	Master Carrier [per 2]	£45.29
HALT64348	Master Carrier ball raced for scenery flat	£127.02
HALT60517	Master Carrier ball raced for swivel arm	£107.88
HALT62132	Wheeled Runner [per 10] [SWL 4 kg. Space 300 mm]	£31.68
HALT60542	Ball Raced Runner [per 10]	£57.64
HAL3578	Tab Hook [per 10]	£10.96
HAL1701E	Twin Hooks [each]	£1.02

## Halls T60 Anglia Pulleys



Return Pulley

Floor Fixing Pulley

code	description	price
HALT61188	Head Pulley [handline]	£45.54
HALT61187	Return Pulley [handline]	£30.05
HALT61182	Floor Fixing Pulley [handline]	£62.17
HALT63758	Weighted floor pulley	£54.05

## Halls T60 Anglia Mounting



Face Fixing Bracket

Stud Hanger

Overlap Clip

T60 Universal Fitting

code	description	price	
HALT63291	Overlap Clip [per 2]	£20.04	
HALT63753	T60 Universal Fitting [per 2]	£22.25	
HALT63136	Stud Hanger to 48 mm Ø [per 2]	£38.11	
HALT610965	"Z" Tube 48 mm to overlap track [per pair]	£30.34	
HALT61181	Face Fixing Bracket [per pair]	£31.13	
HALT60963	Deadline Suspension fitting [per 2]	£21.80	
code	description	per m	10+ reels
ROP120	Black 6 mm x 8 plait polyester handline [per m]	£1.14	£72.08

## Erail

A significantly improved version of the previous Unirail system. The track is a tough one-piece black aluminium extrusion available in lengths up to 6.1 m [20 ft]. Joins are made with a steel plate and grub screw in the top slot with a single roll pin in the base to ensure smooth running surfaces. The track can be rolled down to a 500 mm radius. Erail can be mounted by means of special M8 channel nuts in the top slot allowing easy connection to a hook clamp or M8 studding. Low friction ball-raced nylon runners ensure easy handling of the drapes. Centre opening drapes can be overlapped either by using overlap arms on the master carriers, or the pre-assembled centre opening unit. The track can also be corded for manual use or motorised by using the track mounted S-Drive [supplied with 10 m pendant].

✓ Ideal for small stages such as on cruise ships, conference centres, hotels and school halls ✓ Can be ordered to special radii with fast delivery times ✓ Sleek modern appearance ✓ Lower profile than most tracks ✓ Economically priced ✓ Can take up to 70 kg Uniformly Distributed Loads at 1 m centres 8 Suitable for all but the very heaviest of stage curtains ✗ No scenery carriers or rearfold runners available ✗ Care should be taken when touring to protect long lengths from bending and edge damage.



Joint Plate

Hook Clamp

Deadline Fixing

Master Runner with Cord Clamp

### Erail Track

code	description	price
EEEERL01	Straight Track [up to 6.1 m sold per m]	£28.50
EEEERL01C	Curved Track [up to 6.1 m sold per m]	£41.50
EEEERL05	Joint Plate complete with Roll Pin	£17.75
EEEERL24	Endstop	£16.00
EEEERL26C	Pre-assembled centre opening unit [3 m]	£158.50

### Erail Runners

code	description	price
EEEERL06	2 Wheeled Runner	£9.50
EEEERL07S12	12 Wheel Master Runner with Rope Clamp [WLL 30 kg]	£102.00
EEEERL07A12	Overlap Arm	£17.50

### Erail Pulleys

code	description	price
EEEERL09	Head Pulley	£80.00
EEEERL10	Return Pulley	£55.00

### Erail Mounting and Accessories

code	description	price
EEEERL19	Curved Cord Guide	£30.00
EEEERL21	Head Pulley Cord Guide	£32.00
EEEERL1402	Hook Clamp for 50 mm tube/truss	£20.00
EEETRA15	Deadline Fixing	£10.00
EEEERL17	Mounting Bracket	£10.00
EEEM8ERAILNUT	M8 Attachment Nut	£1.35
EEEERL18	Studding set [M8x150 direct to track]	£5.00
EEEERL23	Curved Track Suspension Bracket	£18.50
EEEERL25	Line Pick Up	£9.50
EEEERL26	Overlap Clip	£14.15

code	description	per m	10+ reels
ROP122A	8 mm x 8 plait black rope	£1.40	£94.81
EEESDRIVE	SDrive [motorised control system w/ 10 m pendant]		£1,555.00

code	description	price
TRAWC	Wireless Controller	£500.00



## Doughty Six Track

This track was designed as competition to the Halls T60 track. They are remarkably similar. The Doughty barrel brackets are nicely designed to allow overlap tracks to hang centrally on the flying bar. They also came up with a bolt-on end plate [above] enabling the track to be cut to exact lengths without the need for onsite welding but Halls responded and now make one of these as well. Oh, the joys of competition!

- ✓ Ideal for schools and colleges
- ✓ Economically priced
- ✓ Versatile modular system
- ✗ A bit fiddly for tours.



### Doughty Six Track

code	description	price
DOUT63706	Straight Track 500 mm section	£37.28
DOUT63708	Straight Track 1 m section	£55.57
DOUT63710	Straight Track 2 m section	£93.15
DOUT63715	Straight Track 3 m section [max]	£132.48
DOUT63730	Curved Track 90° 500 mm radius	£107.63
DOUT63731	Curved Track 90° 750 mm radius	£124.20
DOUT63732	Curved Track 90° 1 m radius	£149.70
DOUT63748	Six Track Spigot plate	£3.76
DOUT63765	Bolt-on End Plate [if cutting track]	£17.60
DOUT63760	Endstop [for walk along system]	£9.30



Endstop



Runners - plain or ball raced



Master Runner

### Doughty Six Track Runners

code	description	price
DOUT63756	Ball Raced Runner WLL 6 kg [use every 300 ,mm]	£7.11
DOUT63757	Plain Bearing Runner WLL 6 kg [use every 300 mm]	£4.05
DOUT63755	Master Runner	£29.58



Twin-Head Pulley



Return Pulley



Weighted Pulley



Floor Fixing Pulley



Overlap Bracket



Barrel Bracket for Overlap Track



Adjustable Support Bracket



Short Support Bracket

### Doughty Six Track Pulleys and Accessories

code	description	price
DOUT63776	Twin-head Pulley	£55.87
DOUT63775	Return Pulley	£34.14
DOUT63820	Weighted Handline Pulley	£55.43
DOUT63825	Floor Fixing Handline Pulley	£73.71
DOUT63752	Overlap Bracket	£10.14
DOUT63770	Line Support [every 2.5 m]	£43.47
DOUT63753	Barrel Bracket for overlap track	£18.15
DOUT63750	Adjustable Support Bracket [takes 10 mm studding]	£9.30
DOUT63751	Short Support Bracket	£8.80
ROP22A	8 mm x 8 plait black rope	£1.40
DOUT63795	Fixing Kit for Six Track [100 bolts nut and washers]	£13.87

## Studio Rail Track

A light and extremely strong track system with several unique features. A pair of four-wheel double swivel carriages [above] allows an adjustable moving rail to be mounted to a pair of fixed parallel rails. The six-wheel carriage with a 28 mm receiver [left] has a SWL of a massive 100 kg. Fitted with a friction brake it stays where it's put. Use it for luminaires, monitors and pantographs etc. It has three points of safety: a 6 mm Ø pin, a sword pin, and finally, the lamp can be rotated then locked in place with a Doughty knob. The cupped curtain brake [above] moves by means of an operator's pole, then twists to engage the brake. We stock the extrusions in natural aluminium but anodised black is also available.

- ✓ Versatile – used in theatres, schools, studios, nightclubs
- ✓ Takes luminaires, monitors, and pantographs



## Studio Rail Track

code	description	price
DOUT84000	Straight Track 2 m silver	£85.30
DOUT84005	Straight Track 3 m silver	£125.41
DOUT84010	Straight Track 4 m silver	£170.28
DOUT84015	Straight Track 6 m silver	£253.42
DOUT84070	Joiner Kit	£17.09
DOUT84080	Endstops [four]	£14.32

## Studio Rail Curved Track

code	description	price
DOUT84017	Curved Track 90° section 750 mm radius silver	£139.17
DOUT84018	Curved Track 90° section 900 mm radius silver	£168.38
DOUT84019	Curved Track 90° section 1,050 mm radius silver	£197.58
DOUT84020	Curved Track 90° section 1,200 mm radius silver	£211.32
DOUT84025	Curved Track 90° section 1,350 mm radius silver	£213.03
DOUT84030	Curved Track 90° section 1,500 mm radius silver	£219.06

## Studio Rail Runners & Carriages



Cable Carriage



Rearfold Runner



Overlap Arm



Wall Brackets



Operator's Pole

code	description	price
DOUT84220	Cable Carriage [five]	£58.57
DOUT84225	Curtain Carriage [five]	£46.57
DOUT84205	6-Wheel Carriage + 28 mm TV Spigot Receiver	£129.72
DOUT84185	4-Wheel Carriage + 16 mm Spigot	£52.82
DOUT84516	6-Wheel Carriage with Swivel	£200.73
DOUT84215	Double Swivel Carriage	£94.82
DOUT84230	Cupped Curtain Brake	£63.62
DOUT84249	Operator's Pole 3.7 m open / 2 m closed	£194.92
DOUT84120	Ceiling Bracket	£27.41
DOUT84105	Wall Bracket 200 mm	£31.78
DOUT84106	Wall Bracket 350 mm	£36.96
DOUT84107	Wall Bracket 500 mm	£42.08
DOUT84180	Rail to Tube Bracket Fitting	£52.41

## HEAVY-DUTY TRACKS

### Triple E UniTrack

Our biggest selling track and the track that we choose for our own hire stock. UniTrack is a versatile modular track system, used widely for theatres, exhibitions, trade shows and rock and roll tours. Sections are available in standard lengths of 2 m, 1 m, 500 mm and 250 mm. The design is such that the track sections stack neatly on trucks or in storage making this system the preferred choice for tours. Special curved sections are available to order and there are at least 16 ways of cording the track, with the option to add drive motors. A range of suspension fittings is available. Runners should generally be spaced at 300 mm intervals. Standard and curved runners have Working Load Limit of 25 kg, whilst master runners and scenery carriers have a WLL of 50 kg. Heavy-duty Carriers have a WLL of 125 kg.

- ✓ Industry favourite ✓ Well proven
- ✓ Stacks very neatly for storage ✓ Ideal for touring
- ✓ Just one bolt to join lengths ✓ Motorised versions available
- ✓ Takes scenery carriers including heavy-duty versions
- ✓ Huge range of roping methods including rearfold
- ✓ Extra parts may be hired for the occasional show requiring many tracks. [page 404]
- ✓ Can take up to 400 kg Uniformly Distributed Loads at 1 m centres
- ✗ Takes up quite a lot of height so not ideal for height-restricted venues



### UniTrack Carriers



code	description	price
EEETRA28A	Scenery Carrier top only [WLL 50 kg]	£77.00
EEETRA28B	Scenery Carrier bottom only	£65.50
EEETRA28AHD	Scenery Carrier heavy-duty top only [WLL 125 kg]	£220.00

### UniTrack Pulleys



code	description	price
EEETRA09	Head Pulley	£82.50
EEETRA10	Return Pulley	£50.00
EEETRA0902 <b>NEW</b>	Head Pulley HD - Single Track	£87.00
EEETRA31R	Single Track Return Pulley	£29.19
EEETRA11	Foot Stirrup	£57.00
EEETRA12	Adjustable Floor Pulley	£57.00

### UniTrack Standard Track



code	description	price
EEETRA01	Straight Track 250 mm	£40.00
EEETRA02	Straight Track 500 mm	£47.00
EEETRA03	Straight Track 1 m	£77.00
EEETRA04	Straight Track 2 m	£100.00
EEETRA05	Joint Set	£6.00

### UniTrack Curved Track

code	description	price
EEETRA1090	Curved Track 90° section 1 m radius	£222.50
EEETRA1590	Curved Track 90° section 1.5 m radius	£300.00
EEETRA2090	Curved Track 90° section 2 m radius	£360.00
EEETRA3090	Curved Track 90° section 3 m radius	£540.00

### UniTrack Runners



code	description	price
EEETRA06	Standard Raced Runner, 2 wheels	£17.50
EEETRA06C	Raced Runner for curves, 4 wheels	£24.00
EEETRA06R	Rearfold Runner	£24.00
EEETRA07	Master Runner	£77.00
EEETRA07A	Master runner overlap arm	£16.50
EEETRA08	Rearfold Accessory	£7.00

### UniTrack Suspension Fittings



code	description	price
EEETRA13	Girder Clamp	£20.00
EEETRA14	Fitted with M12 x 50 mm bolt	£40.00
EEETRA15	Deadline Fixing	£10.00
EEETRA1601 <b>NEW</b>	Wall Bracket 300 mm	£45.00
EEETRA1602 <b>NEW</b>	Wall Bracket 500 mm	£62.00
EEETRA17	Offset Plate	£8.00
EEETRA18	Studding Set [M12 x 150 mm]	£6.00

## UniTrack Components

			
Endstop	Flat Endstop	Line Pick Up	Overlap Clip Set
code	description	price	
EEETRA24	Endstop	£12.00	
EEETRA24S	Flat Endstop	£20.00	
EEETRA25	Line Pick Up	£10.00	
EEETRA26	Overlap Clip	£15.00	

## UniTrack Curved Track Fittings

			
Curve Cord Guide	Curve Master Runner	Curve Head Pulley	Curve Return Pulley
code	description	price	
EEETRA19	Curve Cord Guide	£46.00	
EEETRA20	Curve Master Runner	£110.00	
EEETRA21	Curve Head Pulley	£130.00	
EEETRA22	Curve Return Pulley	£62.00	
EEETRA23	Curve Suspension Bracket	£27.00	

## UniTrack Side Cord System

			
Side Cord Guide	Centre Overlap Divert	Side Cord Pulley Set	Side Cord Rope Clamp
code	description	price	
EEETRA32	Side Cord Guide	£60.00	
EEETRA33	Side Cord Centre Overlap Diverter	£120.00	
EEETRA34	Side Cord Head & Pulley set, 3 part	£115.00	
EEETRA35	Side-Cord Rope Clamp for Master Runner	£27.50	

## Handlines

Choose the black polyester cord for all normal use, it makes for a very high quality and reliable handline. If you are using scenery carriers under heavy load on long tracks it can be advantageous to choose a rope with virtually no stretch. Flints stocks a Dyneema rope with a matt black polyester cover which is indistinguishable from the polyester rope except its working stretch is less than 1.5%. The Dyneema Pro is the best choice under very heavy loads because it does not have a polyester cover and the master carrier clamps directly to the line. The working stretch on this line is below 1.3% [Breaking load: 5,000 kg!].

code	description	breaking strain	per m
ROP122A	Black Polyester Cord [handline] 8mm	1000kg	£1.40
ROP438	Black Dyneema [polyester cover] 8mm	1500kg	£4.45
ROP150508	Dyneema Pro [pure Dyneema] 8mm	5300kg	£7.05
code	description	breaking strain	per 100 m full reel
ROP122AD	Black Polyester Cord [handline] 8mm	1000kg	£105.35
ROP438D	Black Dyneema [polyester cover] 8mm	1500kg	£323.60
ROP150508D	Dyneema Pro [pure Dyneema] 8mm	5300kg	£597.42

## TDrive Motor

The Triple E TDrive is suitable for use with both their UniTrack and UniBeam systems. With variable speed controls to open/close and stop, it provides a clean solution. Supplied with a 10 m pendant.

Specifications: Pulls up to 300 kg on straight, 200 kg on curve. Hand Drives also available - call us for details and a quote.

code	description	price
EEETDRIVE	TDrive Motor	£2,650.00
TRAWC	Wireless Controller	£500.00

## UniBeam Standard Track

UniBeam combines track and truss in one unit to provide a truly adaptable track system. Particularly appropriate for permanent installation, especially those that host a number of repertory productions, this modular system is suitable for anything from rock concerts to opera to theatre.


With its symmetrical I-beam shape and solid construction, UniBeam is a complete system which accepts an extensive range of accessories. Capable of large spans between two suspension points, UniBeam makes an extremely accommodating fly bar and also lends itself to large curved systems, particularly cycloramas. To motorise the system, use the TDrive listed above.

- ✓ Same profile as UniTrack so many of the accessories are interchangeable
- ✓ The continuous slot along the top and bottom will take standard Unistrut fittings
- ✓ The Uniring accessory locks to the channel with a quick 90° twist and allows drapes to be quickly attached to the underside of the beam
- ✓ Takes Heavy-Duty Scenery Carriers allowing Safe Working Loads of up to 385 kg
- ✓ Takes up to 1,070 kg of Uniformly Distributed Loads at 1 m centres



code	description	price
UBM01	Straight Track per 1 m [up to 6.1 m]	£80.00
UBM01C	Curved Track [min. radius 2 m]	£97.63
UBM05	Joint Set	£36.50
EEETRA24	Endstop	£12.00
EEETRA24S	Flat Endstop	£20.00

## UniBeam Carriers and Pulleys

		
UniBeam Scenery Carrier Top Part	Head Pulley	Return Pulley
code	description	price
UBM28A	UniBeam Scenery Carrier top part [WLL 385 kg] Also takes UniTrack runners and accessories [see previous page]	£315.00
EEETRA09	Head Pulley	£82.50
EEETRA10	Return Pulley	£50.00
EEETRA0902	Head Pulley HD - Single Track	£87.00
EEETRA31R	Single Track Return Pulley	£29.19



## UniBeam Mounting and Accessories



code	description	price
UBM14	Hook Clamp for 50 mm truss	£33.90
EEETRA17	Offset Plate	£8.00
UBM18	Studding Set [150 mm c/w nuts, channel nut and washers]	£6.00
EEETRA25	Line Pick Up	£10.00
EEETRA26	Overlap Clip	£15.00
URING	Uniring	£6.00

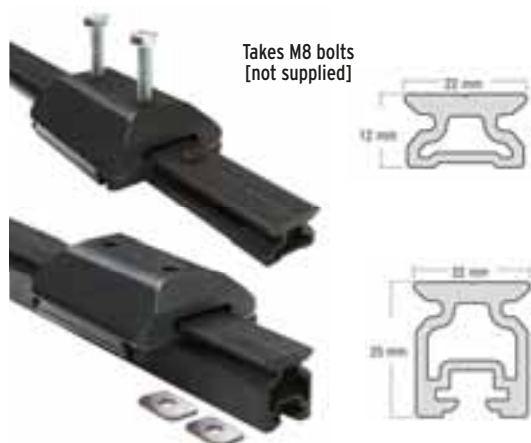
## HARKEN TRACK

### Ball Bearing Cars and Track

These super smooth freerunning cars and tracks are used in everything from sliding seats to window washing apparatus and from exercise machines to acrobatics. Loads move virtually free of any friction. The recirculating Delrin ball bearings are held captive so the cars can be easily removed from the tracks. The utility cars are derived from the toughest and best quality marine equipment but are simplified ready to accept your own customisation. The flat top surface is provided with two tapped M8 holes at 38 mm centres ready to accept your bolts or eye nuts. The track comes in either low-profile or a tough beam-section with built-in strength for spanning gaps.

- ✓ Use them for smooth-running stage machinery
- ✓ Perfect for sliding trap covers
- ✓ Friction-free scenery sliders
- ✓ Indoors or outside
- ✓ Maintenance-free – just flush with clean water!
- ✓ Tracks can be supplied rolled to compound curves – please phone our Rigging Manager for details

**SPECIFICATION:** Cars and bearing races machined from 6061-T6 Aluminium. Track extruded from high grade 6061-T6 aluminium. Black Hardcote anodising makes them extremely durable. If the tracks are ordered as set lengths [see below] both ends will be black anodised. The track can be easily cut but the cut end will not be anodised. Smaller and larger tracks are available – please phone our Rigging Manager for details.



SAFETY	Min Breaking Load	Safety Factor	SWL
	1,134kg	19.89 to 1	57kg

code	description	price
HAR272536	High Beam Track 3.6m	£237.85
HAR27201	Low Level Track 1m	£55.74
HAR27202	Low Level Track 1.8m	£89.50
HARHC8473	Utility Car M8 Threads	£109.71
HARE2200	Endstops [Low Level Track] Set of two	£13.30
HAR264	Endstops [High Beam Track] Set of two	£43.34

## SPARES & ACCESSORIES

### Track Spares

Flints has a wide experience of tab tracks based on forty-years of theatre work. We can normally recognise a component from a digital photo or sketch. Even very old components can often be supplied. If you have a troublesome track we can provide remote assistance, or if required we can visit your stage to either effect immediate repairs, or suggest a course of action. Below we have listed some of the common components and spares that we can supply.



### Halls Common Components and Spares

code	description	price
HAL1701E	Twin Hooks [each]	£1.02
HAL3578	Tab Hook [per 10]	£10.96
HAL714	T70 Wheeled Runner [per 10]	£56.71
HAL713	T70 Ball Raced Runner [per 10]	£106.62
HAL71105	T70 Master Runner [per 2]	£33.56

### Unirail Components and Spares

code	description	price
ROPGBC	Unirail Clip	£1.80

### 3-Way Track Components and Spares

code	description	price
EEE2W06P	Plain Wheel Runner	£4.00
EEE2W06C	Ball Raced Wheel Runner	£7.00

### Handlines & Chains

code	description	price
WIR862	Mediumweight Jack Chain	£11.85
WIR861	Heavyweight Jack Chain	£19.95

### Ropes

code	description	price
ROP042MD100	No. 4 Jute Sash [economical option for T60]	£36.52
ROP044MD100	No. 6 Jute Sash [economical option for T70]	£58.41

code	description	per m
ROP122A	Black Polyester Cord [handline] 8mm	£1.40
ROP438	Black Dyneema [polyester cover] 8mm	£4.45
ROP150508	Dyneema Pro [pure Dyneema] 8mm	£7.05

code	description	per 100 m full reel
ROP122AD	Black Polyester Cord [handline] 8mm	£105.35
ROP438D	Black Dyneema [polyester cover] 8mm	£323.60
ROP150508D	Dyneema Pro [pure Dyneema] 8mm	£597.42



# TRACKS / TUBES & CLAMPS

## TRACK LUBRICANTS

### McLube™ Dry Lubricant

This easy to apply, fast drying lubricant instantly bonds to clean, dry surfaces, repelling dirt, and significantly reducing friction. High Performance Dry Lubricant lasts significantly longer than Teflon® additives, oil- or wax based lubricants and it is environmentally friendly, with no chlorofluorocarbons (CFCs), petroleum, or poison emitting toxins. Use on curtain tracks, sliding traps, sliding doors, cloths and anywhere friction is a problem.

- ✓ Can be used directly onto cloth with virtually no marking
- ✓ No sticky grease or dirty oil
- ✓ Solves many friction problems making your show more reliable, slicker and faster!



code	volume	price
HARML08	300ml	£19.73

### Amberglide PTFE Spray

This PTFE lubricant is a multipurpose high quality lubricant enriched with PTFE for enhanced durability in high wear applications. It cleans, waterproofs and reduces friction. Particularly suitable for tab tracks. I have seen really troublesome tracks converted to smooth running ones with just one quick spray!



code	volume	price
SAF516	400ml	£23.38

## TUBES & CLAMPS

### TUBES & CLAMPS

#### Galvanised Steel Scaffold Tube

48.3 mm outside diameter tube is the industry standard for most applications, such as lighting positions, flying bars and staging leg supports. The 33.7 mm outside-diameter tube is used for applications where the larger tube would be inappropriate such as shelving, racking and handrail supports. Flints is happy to cut your tubes to length to speed up your fit-up. The full length price is for uncut full lengths. The half length prices include the cutting charge. All other lengths are charged at the per metre price plus the cutting charge. For large quantities of cut lengths please phone for a quotation.



Size 6	description	weight	length	wall THK	tube ø	price
SCF030FL	Full length	16kg	6m	3mm	33.7mm	£49.95
SCF030HL	Half length	8kg	3m	3mm	33.7mm	£26.39
SCF030	Per metre	2.5kg		3mm	33.7mm	£8.79
Size 8	description	weight	length	wall THK	tube ø	price
SCF090FL	Full length	29.82kg	6m	4mm	48.3mm	£49.95
SCF090HL	Half length	14.91kg	3m	4mm	48.3mm	£27.00
SCF090	Per metre	4.66kg		4mm	48.3mm	£9.95
CUTS	Cutting charge [per cut]					£0.80

#### Aluminium Scaffold Tube

48.3 mm outside diameter. Aluminium tube is about one third of the weight of galvanised tube. Flints is happy to cut your tubes to length to speed up your fit-up. Cut lengths can sometimes speed up delivery, too. The full length price is for uncut full lengths. The half length prices include the cutting charge. All other lengths are charged at the per metre price plus the cutting charge. For large quantities of cut lengths please phone for a quotation.

Conformity: BS 1139. Aluminium grade: 6082. Tensile Strength: 316 N/mm2



Size 8	description	weight	length	wall THK	tube ø	price
SCF091FL	Full length	10.07kg	6m	4.47mm	48.3mm	£61.95
SCF091HL	Half length	5.04kg	3m	4.47mm	48.3mm	£35.65
SCF091	Per metre	1.65kg		4.47mm	48.3mm	£13.70
CUTS	Cutting charge [per cut]					£0.80

#### Black Anodised Aluminium Scaffold Tube

This tube is the ideal choice for unobtrusive rigging positions and flying bars. The semi-matt black finish will not catch the light like self-colour aluminium tube. Aluminium is notoriously difficult to paint so for a long-lasting high quality finish black anodising is the preferred method. The tube is supplied wrapped to protect it during storage. There are occasionally some small witness marks which are part of the anodising process. When ordering cut lengths, we advise there is likely to be some damage to the finish, so we would recommend purchasing a can of matt black spray [page 75] to touch up. The tube is extruded in accordance with BS EN755. Aluminium grade: 6082T6. The anodising is carried out in accordance with EN BS ISO 7599:2010.

Please contact us for information on full length delivery availability.



Size 8	description	weight	length	wall THK	tube ø	price
SCF091BFL	Full length	10.07kg	6m	4.47mm	48.3mm	£115.00
SCF091BHL	Half length	5.04kg	3m	4.47mm	48.3mm	£72.50
SCF091B	Per metre	1.65kg		4.47mm	48.3mm	£26.50
CUTS	Cutting charge [per cut]					£0.80

## TUBE REAMER

### Supertool Tube Reamer

Just one tool will chamfer both the outside and inside of tubes from 12 mm to 54 mm diameter! Suitable for use on steel, copper, stainless steel, aluminium brass and hard polyester resin. Blade material SAE8660. Ideal for removing razor sharp shards from scaffold and conduit cuts.



code

TOLTR1254S

price

£46.30

## TANK TRAPS

### Tank Trap

Really useful devices for making temporary structures to hold up masking, lighting booms etc. but useless at stopping tanks. 600 mm<sup>2</sup> heavy base plate with a 50 mm receiver fitted with wing bolts to firmly secure aluminium or galvanised scaffold tubes in place. The clever cut-out in the base allows compact stacking for transport and storage. The Tradeline price for units of eight includes FREE delivery – and they are heavy. Also available with “lean back wheels” so you can more easily move them about. Call us for details. We also hire [page 403].



code

DOUT54250

price

£144.53

8+

£136.93

### 3 Position Tank Trap & Trolley

This fantastic development of the already highly useful Tank Trap gives ultimate flexibility for building structures. The receiver is designed to take a 48 mm barrel [size 8 scaffold], but the really clever bit is that it's removable and can be fixed in 3 positions; centrally, at the edge, or in the corner of the plate. We used these on our stand at the ABTT Theatre Show, paired with Black Anodised Scaffold Tube, and the receiver positioned at the corner of the plates, we were able to achieve a slick design that maximised ground space. For those using Truss, the receiver can be removed, the plate inverted, and the truss fixed directly down - connectors and fixings sold separately [call us for more information]. The Trolley can take ten 3-position tank traps with the receivers slotted in between the traps, and captivated by a retaining plate.



code

DOUT54265

description

3 Position Tank Trap

price

£206.25

DOUT54266

Trolley

£360.10

### Scaffolding Tube Delivery

Because of carrier restrictions regarding long lengths this used to be a bit complicated, but thankfully we've pretty much got it sorted now.

Lengths up to 6m can be delivered to England, Wales, Central & Southern Scotland for £55 up to 20 kg + £0.60 per kg thereafter [outside the London Van Run]. Cut lengths up to 3 m are charged by weight as standard.

See back of catalogue for further details and the London postcodes.

If your requirements fall outside this we are of course happy to obtain a tailored haulage quotation for you.

## CONDUIT

### Conduit

Steel Conduit in a black enamel finish is generally used to add weight to the bottom of painted cloths and borders to get a neat straight edge. The gentle weight will help pull out any creases in the cloths caused by rolling or folding. The advantage of steel conduit is that it is supplied with a thread cut into each end, and by using the conduit couplers it is easy to obtain a continuous pipe to run inside the pocket on the cloth. Each length of conduit is supplied with one coupler. We also supply a nice bullet end to help the pipe slide smoothly through the pocket without snagging. They also make a neat and safe end to the tube. If you need your conduit cut to length and threaded for ease, we can do that for your too! The poorly chosen code implies we are fleecing you but by the time we have got the gear set up...



code	size	wall THK	length	price	8+
SCF100	20mm	1.37mm	3.75m	£12.29	£11.05
SCF102	25mm	1.4mm	3.75m	£13.95	£12.55
CUTCON	Conduit Cutting and Re-Threading			£3.00	

### Conduit Accessories

Each length of conduit is supplied with a coupler so you shouldn't really need to buy any, but we sell lots of them and are very happy about this. You might also like to buy a few bullet ends to make your pipes slither through the cloth pockets without snagging. The bullet end stops have a gauge of 0.8 - 2 mm.



Spare Coupler		Saddle		Bullet end stops for conduit	
code	Type	size	price	100+	
SCF103	Coupler	20mm	£0.67		
SCF104	Coupler	25mm	£0.75		
SCF105	Saddle	20mm	£0.55		
SCF106	Saddle	25mm	£0.68		
FHS559	Bullet End Stop	20mm	£0.28	£0.25	
FHS561	Bullet End Stop	25mm	£0.30	£0.27	

### Conduit Die Sets

It is not generally necessary to have a conduit die if the sole use of the conduit is to add weight to the base pocket of cloths. However, if you are doing a small scale tour it may be necessary to reduce the length of the conduit to fit the hopelessly inadequate van that they hired for you. If you are an electrician you will be needing to re-thread conduit ends all the time.



### Two Arm Conduit Die Holder

A simple set complete with a 20 mm and 25 mm die. This is a very economical solution where access is good.

### 7-Piece Ratchet Set

Suitable for threading black-gas or galvanized iron pipes. The compact ratchet head is suitable for working close to walls etc. The cast iron die heads have alloy steel dies, four chasers per head for a clean accurate thread and four waste holes for quick dispersion of swarf. Supplied in a blow mould carrying case with: 16, 20, 25 and 32 mm die heads, two-piece handle, compact ratchet head.



code	description	price
TOL22496	7-piece ratchet conduit die set	£119.95
SCFESCO	20 mm and 25 mm conduit die set	£29.95
TOLMON3020	Disposable de-burring tool	£7.02

# TUBES & CLAMPS

## TUBE CUTTER

### Supertool Tube Cutter with Bearings!

This highly successful tube cutter is fitted with bearings to both the rollers and cutting wheel. NB: over tightening may break blades.

- ✓ Easy cutting due to the bearings
- ✓ So strong it will cut hard materials like stainless steel as well as steel, copper, aluminium, brass and plastic etc.
- ✓ Lightweight aluminium alloy body, only 990 g, with baked enamel finish
- ✓ Capable of quietly and neatly cutting scaffolding and conduit from 16 mm to 60 mm diameter
- ✓ No need for hot works certificates

We import these tools direct from the manufacturers in Japan and offer them at incredible value.

code	description	max THK	cuts ø	price
TOLTCB502	Cutter	6mm	16-60mm	£75.00
TOLTCB502	Spare Blade			£13.65



## GRP TUBES

### Glass Fibre Tube [Clearing Stick]

These lightweight but strong tubes make ideal clearing sticks. For deburring see the amazing Supertool Reamer on previous page.

Always attach a lanyard if clearing from the fly floor.

For adjustable clearing poles [Purdy Power Lock + Hook] see page 95.

code	length	wall THK	diameter	price
SCF38GFT	6m	2.5mm	38mm	£39.79



## SCAFFOLD BASE PLATES

### Adjustable Scaffold Foot

Useful for levelling staging legs on uneven ground such as thrust stages landing on raked auditorium floors. When used outdoors on soft ground they are best mounted on scaffold boards. If you have a cluster of legs together why not buy a Multi Leg Adapter [page 395]? They allow just one leg to drop to the floor while supporting four rostra corners. Also see Rotalocks [page 253].



### Scaffold Base Plate

Reduces point loading, prevents damage to floors and can be fixed in place to avoid scaffold legs being shunted out of position. They are not pretty, but they are cheap. Fits both Size 6 and Size 8 tubes.



code	description	base	base width	price
SCF119	Base plate	150mm <sup>2</sup>	150mm	£1.32

code	overall height	adjustable height [+/- 10%]	base	price
SCF140	310mm	210mm	150mm <sup>2</sup>	£15.00

### Scaffold Base Plate Protector

Made from hard plastic they are designed for use under the Scaffold Base Plate and Adjustable Scaffold Foot to protect floors from damage. You can't miss them – they're bright yellow.

code	description	base	base width	price
SCF121	Base plate protector	220mm <sup>2</sup>	220mm	£1.95

## HEX KEY TUBE FITTINGS & ACCESSORIES

Malleable iron castings with a streamlined appearance that are both extremely versatile and economical. Simple to fit as the tube slides into the socket and is firmly secured in position with a hex key-operated socket screw. The standard Size 8 clamps fit regular 48.3 mm Ø scaffolding tube or aluminium pipe. The smaller Size 6 fits 33.7 mm Ø tube. To obtain maximum slip loads, tighten to 40 Nm [page 195 for Torque Wrenches]. Technically, the correct hex keys to use are  $\frac{1}{4}$ " and  $\frac{5}{16}$ ". We find a metric 6 mm a bit too sloppy in the  $\frac{1}{4}$ ", but an 8 mm works very well in the  $\frac{5}{16}$ " [7.93 mm]. If you are constructing hanging ladder beams for lanterns we would recommend that you drill right through the corner fittings and tube and use a high tensile bolt to ensure nothing works loose.

All the fittings are available galvanised, with a select range in Black Powder Coat. Other fittings also available in black – please phone for a quote. We can also cut all your tube to length ready for a speedy fit-up [page 248].



A2 [Short T]		price
SCF602	Size 6	£3.82
SCF802	Size 8	£6.08
SCF802B	Black Size 8	£5.65



A4 [Long T]		price
SCF604	Size 6	£5.92
SCF804	Size 8	£9.66
SCF804B	Black Size 8	£8.95



A6 [Elbow]		price
SCF606	Size 6	£4.61
SCF806	Size 8	£7.50
SCF806B	Black Size 8	£6.95



A8 [Straight Joiner]		price
SCF608	Size 6	£4.36
SCF808	Size 8	£6.61
SCF808B	Black Size 8	£6.15



A10 [Round Base]		price
SCF610	Size 6	£4.66
SCF810	Size 8	£7.85
SCF810B	Black Size 8	£7.30



A12 [Oval Base]		price
SCF612	Size 6	£6.77
SCF812	Size 8	£11.20
SCF812B	Black Size 8	£9.95



A135 [Clamp-on T (1 bolt)]		price
SCF8135	Size 8	£11.64



A14 [Wall Fixings]		price
SCF614	Size 6	£10.23
SCF814	Size 8	£16.38



A18 [3-Way Elbow]		price
SCF618	Size 6	£6.42
SCF818	Size 8	£11.23
SCF818B	Black Size 8	£10.50



A20 [3-Way T]		price
SCF620	Size 6	£5.24
SCF820	Size 8	£8.13
SCF820B	Black Size 8	£7.55



A21 [3-Way Adj. T]		price
SCF621	Size 6	£5.12
SCF821	Size 8	£7.00
SCF821B	Black Size 8	£6.50



A22 [Right Angle Joiner]		price
SCF622	Size 6	£5.59
SCF822	Size 8	£8.92
SCF624	Size 6	£7.12



A24 [4-Way T]		price
SCF624	Size 6	£7.12
SCF824	Size 8	£11.02
SCF824B	Black Size 8	£10.25



A26 [5-Way T]		price
SCF626	Size 6	£10.14
SCF826	Size 8	£15.76



A28 [Side Coupler]		price
SCF628	Size 6	£3.82
SCF828	Size 8	£6.56



A30 [Side Coupler with T]		price
SCF630	Size 6	£6.22
SCF830	Size 8	£9.81



# TUBES & CLAMPS



A34 [Small Wall Fixing]	price
SCF634 Size 6	£4.93
SCF834 Size 8	£8.60
SCF834B Black Size 8	£7.95



A136 [Clamp-on T]	price
SCF8136 Size 8	£19.80



A44 [Side Flexi. Coupler]	price
SCF644 Size 6	£7.19
SCF844 Size 8	£9.98
SCF844B Black Size 8	£9.25



A46 [Double Flexi. Coupler]	price
SCF646 Size 6	£13.29
SCF846 Size 8	£17.58



A52 [Flexi. Wall Coupler]	price
SCF652 Size 6	£8.71
SCF852 Size 8	£10.44



199 [Flush Panel Fastener]	price
SCF8199 Size 8	£5.82



173M [Centre Panel Fastener]	price
SCF6173M Size 6	£3.21
SCF8173M Size 8	£4.13
SCF8173MB Black Size 8	£3.85



167M [Double Panel Fastener]	price
SCF6167M Size 6	£5.28
SCF8167M Size 8	£5.83
SCF8167MB Black Size 8	£5.42



168M [Rt Angle Panel Fastener]	price
SCF6168M Size 6	£6.39
SCF8168M Size 8	£7.16



179 [Plain Collar]	price
SCF6179 Size 6	£3.35
SCF8179 Size 8	£4.39
SCF8179B Black Size 8	£4.08



182 [Plain Collar w/ hook]	price
SCF6182 Size 6	£3.45
SCF8182 Size 8	£4.69



166 [Adj. Knuckle]	price
SCF8166 Size 8	£15.07

## Grub Screws

Spare grub screws because you are bound to drop one down the dip trap.

code	description	price
SCFSGS6	Size 6	£0.87
SCFSGS8	Size 8	£0.87



## Allen Keys [Hex Keys]

Plain long-arm Allen keys to fit Size 6 and Size 8 key clamps. A large selection of Allen keys can also be found on page 325.

code	description	price
TOL2309B	[for size 6 key clamps - good fit but short arm]	£1.17
TOL2310	Long Arm Hex Key [8 mm]	£3.04



## Galvafruid

A zinc-rich spray for steel. Weathered grey finish. Protective coating to ISO 1461:1999. 99% pure zinc content. 61% zinc content in cured film. Sacrificial coating protects from corrosion. Ideal for preventing rust after cutting galvanised tubes. See also Galva Colour 2-in-1 spray [page 14] in black and white.

code	volume	price
PATCGS1	400ml	£14.34



## Ratchet Allen Key

To speed up key clamp constructions for the professional user, Flints has chosen this good quality 3/8" drive Teng ratchet handle which will take 1/4" and 5/16" hex sockets. Fits Size 6 and Size 8 key clamp fittings.

code	description	price
TEN3800FRP	3/8" Ratchet Handle [fibre reinforced]	£39.14
TOL2360B	Drive Peg 1/4" [Size 6] (fits 3/8" drive)	£9.80
TOL2361B	Drive Peg 5/16" [Size 8] (fits 3/8" drive)	£10.00



## TUBE TO TUBE

### Scaffold Clamps

Although I have never seen a scaffolder with a torque wrench we do get occasionally asked what is the correct torque for a scaffolding clamp. Apparently when they are tested to meet the standard the bolts are torqued to 45 lb. ft [61.011 Nm]. Suitable Torque Wrenches are listed on page 195.

#### Swivel Coupler

Use 21 mm podger or 7/16" Whitworth scaffold spanner. Visit Podgertropolis on pages 338-344. See for half swivels.

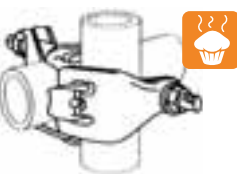
code	price	10+
SCF051	£5.39	£4.85



#### Fixed Right Angle Coupler

Use 21 mm podger or 7/16" Whitworth scaffold spanner. Visit Podgertropolis on pages 338-344.

code	price	10+
SCF052	£4.98	£4.48



#### Rotalock

Designed for use with cattle pens as there are no sharp protrusions to hurt the poor cows before they get slaughtered. These fittings are ideal for auditorium structures as the smooth profile will not catch clothing etc. They also make very rigid boom arms and tighten with just one bolt. Another unique advantage of these fittings is they can still be used where groups of rostra legs cluster together. They will squeeze between rostra legs allowing a horizontal brace to be fitted. This would not be possible with conventional scaffolding clamps.

code	price
SCF130	£21.62



#### Angled Cross Over

Neater than a scaffolding clamp for permanent installations. The clips can be fitted with the two tubes in position. Fits 48 - 50 mm Ø tube.

code	price
DOUT25150	£8.97



#### Putlog Coupler

Allows a tube to be fixed at right angles leaving the top of the horizontal tube clear for decking.

code	price
SCF117	£2.57



#### Oyster (Hoarding) Clamp

Barney's favourite scaffolding clamp, and, like Barney, it is rather clever. As you tighten the clamp onto the scaffold tube the other jaws close up. Although they are designed to close onto another scaffold tube they can also be used to grip the stiles of flats or plywood sheets. It's a great price for a powerful and useful clamp.

code	price
SCF120N	£5.14



#### Solid Tube Joiner

A good choice for strong horizontal joints in 48.3 mm Ø scaffolding tube.

code	price
SCF114	£18.63



#### External Bolt Barrier Joiner

A popular and strong joiner for 48.3 mm Ø aluminium or steel flying bars. Supplied complete with bolts.

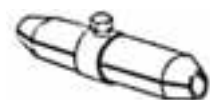
code	price
SCF113	£23.48



#### Joint Pin

These are best on tubes in compression rather than horizontal flying bars.

code	price	10+
SCF111	£4.10	£3.69



## TUBES TO OTHER STUFF

#### Universal Clamp

Endless uses for rigging barrels to Ceiling Saddles [page 255], Hook Clamps [page 373], and wall brackets [page 256]. Economical in price and hugely popular. The 48 mm size is now available in black. See also the Universal Joint [page 255].

code	description	Finish	price
DOU30400	For 48 mm tube with M12 plate	BZP	£9.08
DOU30404	For 48 mm tube with M12 plate	Black	£13.01



#### Half Swivel

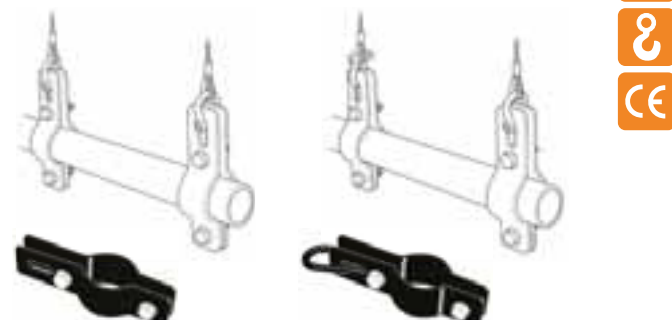
In plain finish ready to weld to your scenery. Use 21 mm podger or 7/16" Whitworth scaffold spanner. Visit Podgertropolis on pages 338 - 344.

code	price	10+
SCF051H	£3.35	£3.02



#### Hanging Clamps

One of our most popular fittings. For full details see page 165.



code	description	price	50+
FHS002HCO	With oval ring	£10.80	£9.70
FHS002HCS	Without ring	£8.95	£8.05
FHS002LHCS	Large size for 60.3 mm Ø tube [no ring]	£8.95	£8.05

# TUBES & CLAMPS

## DOUGHTY CLAMPS

The Doughty Clamp combines strength and durability. Constructed from high-tensile aluminium extrusion supplied as either polished aluminium or with a satin black powder coated finish [available to order if not listed]. They fit pipes with outside diameters between 48 and 51 mm. The Standard clamp will take an M12 nut or bolt head, allowing the user to create their own fixings. The lightweight clamps come with a Hex Nut instead of a Wing Nut as shown.



### Standard Half Couplers [50mm wide]

Takes M12 bolts.

code	Type	SWL	price
DOU57000	Standard	750kg	£29.39
DOU57010	Black Standard	750kg	£33.15
DOU58100	Lightweight	500kg	£25.81
DOU58101	Black Lightweight	500kg	£30.09



### Slimline Half Couplers [30mm wide]

code	Type	SWL	price
DOU57001	Standard	750kg	£25.33
DOU57011	Black Version	750kg	£29.05



### Hanging Clamps with Ring

code	Type	SWL	price
DOU57205	Fitted with M12 eyenut	340kg	£38.56
DOU57206	Black Version	340kg	£42.50



### "Hook" Clamp

Very popular high tensile aluminium clamps widely used for attaching scenery as well as lanterns to bars and trussing. Suited to large and heavy luminaries.

code	description	SWL	price
DOU57200	Fitted with M12 x 50 mm bolt	750kg	£33.04
DOU57201	Black version	750kg	£39.26
DOU58105	Fitted with M12 x 50 mm bolt	500kg	£28.68
DOU58106	Black version	500kg	£33.15



### Swivel Couplers

code	Type	SWL	price
DOU57100	Standard	750kg	£65.26
DOU57110	Black Version	500kg	£76.56
DOU58120	Lightweight	500kg	£56.68



### Tube Joiner

For quickly connecting tubes end to end.

code	price
DOU57240	£59.70



## Parallel Couplers

code	Type	SWL	price
DOU57104	Standard	750kg	£66.75
DOU57114	Black Version	750kg	£74.98
DOU58115	Lightweight	500kg	£56.68



## 90° Fixed Couplers

code	Type	SWL	price
DOU57102	Standard	750kg	£66.75
DOU57112	Black Version	750kg	£74.98
DOU58110	Lightweight	500kg	£56.68



## Female Silver Knobs

Provides easygrip handle, an optional extra for Doughty Clamps.

code	size	weight	price
DOUS122	M10	116g	£2.87
DOUS123	M12	116g	£3.14



## WELDABLE FITTINGS

These aluminium weld fittings should be TIG welded with Alutig Ma5 Classification AWS A5 10-92, BS 2901-90 DIN 1732-88. The fittings with a spigot are a very snug fit and could probably be adequately secured with a grub screw and some epoxy such as Araldite 2015 [page 148].

### Weldable Half Coupler

Suitable for welding, this product can be used in the manufacture of many "one off" items.

code	price
DOU57230	£28.52



### Basic Stabiliser Coupler

Use this to connect a scaffold tube to a 3 x 1" nominal timber batten. Width between lugs: 21 mm.

code	price
DOU58720	£30.53



### Stabiliser Coupler with Plug

Fits snugly to our 48.3 mm aluminium tube. Other size plugs are available – please phone for details.

code	description	price
DOU58729	With 39.5 mm plug	£43.43



### Knuckle Joint

Provides an articulated join for 48.3 mm Ø aluminium tubes. Overall length: 117 mm.

code	description	price
DOU58734	With 39.5 mm plug	£26.05





## MANFROTTO CLAMPS

### Manfrotto Slim Half Coupler

This coupler fits to a wider range of tubes than the Doughty Clamps. Grips tubes from 42 mm Ø up to 52 mm Ø. Drilled with a 13 mm Ø hole for an M12 bolt. Useful with EK2 Electro Kabukis [page 176].



code	weight	price
MANC4560	260g	£26.62

### Manfrotto Super Clamps

Very versatile and clever clamps that will grip from 55 mm Ø right down to 13 mm Ø! Supplied with a wedge to square off the jaws for fastening to flat surfaces. Available as single or fixed double. The stud will allow rapid connection of trunnion arms etc.



code	description	WLL	price
MAN035	Single	15kg	£32.83
MAN038	Fixed double	15kg	£69.28
MAN174	Hex 16 mm lighting stud [M10]	15kg	£15.96

## GIRDER CLAMPS

### Gravlock Coupler

A very useful fitting for securing 48.3 mm scaffolding bars to girders. Suitable for girder flanges up to 45 mm thick. Must be used in pairs.



code	description	price
SCF116	per pair	£18.34

### Light-Duty Girder Clamps

Designed to hang 12 mm studding from girders. Typical uses include fixing tab tracks. For 150 - 190 mm beams with thicker flanges of up to 15 mm use the DOUF1087 hook bolt.



code	description	SWL	adjustable from	price
DOU29800	Adjustable	250kg	100-140mm	£65.32
DOUF1087	Hook bolt for 15 mm flange			£8.08

### Marquee Kader Beam Clamps

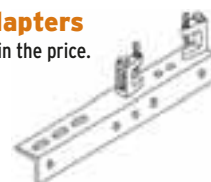
Adjustable clamps designed specifically for use with clear span marquees using Kader grooved beams. Standard version has threaded holes for M10, M12 and M14 fixings, lightweight version only for M10. Both black powder coated.



code	Type	SWL	fits beams	price
DOUT28870	Standard	150kg	50-110mm	£73.60
DOUT28865	Lightweight	20kg	80-125mm	£41.15

### Adjustable Girder Clamps with Lindapters

Uses two M12 Lindapter flange clamps which are included in the price. Angle iron is black.



code	weight	SWL	adjustable from	price
DOU29500	1kg	500kg	75-150mm	£63.18
DOU29600	1kg	500kg	150-300mm	£66.75

## LINDAPTER FLANGE CLAMPS

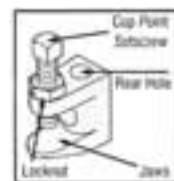
### Lindapter Flange Clamps

The simplest way of suspending fittings from steel beams. Full details can be found on the download section of flints.co.uk. We now also stock a Beam Flange Clamp type FLS with a swivel unit for inclined applications. Supplied with a high tensile set screw for a secure grip on both parallel and tapered flanges.

Swivel Type



Standard Type



SPECIFICATION: SWL calculated use a Safety factor of 4:1. SCFLS10: Clamping range: 3-17 mm.

code	Type	SWL	set screw	lock nut	price	
SCF108	M10	2.4kN	8Nm	22Nm	£2.10	
SCF107	M12	3.1kN	8Nm	22Nm	£3.05	
code	Type	SWL < 25°	SWL 25° - 45°	set screw	lock nut	price
SCFLS10	M10 Swivel	2.5kN	1.5kN	18Nm	18Nm	£5.39

## BRACKETS

### Ceiling Saddles

Allows a fixing to a ceiling with an accessible 75 mm stand off for a bolt or studding. When used with universal clamps [page 253] it allows the barrel to stand off enough for hook clamp access. Drilled with 12 mm Ø fixing holes.



code	Finish	price
DOU33700	BZP	£8.36

### Universal Joint

A very useful steel universal joint which has two M12 fixing holes. Can be used in conjunction with many other fittings such as the Ceiling Saddle [above] and the Universal Clamp [below].



code	Finish	SWL	price
DOU30410	BZP	100kg	£24.49

### Pipe to Wall Stand off Brackets

For a 48.3 mm diameter tube. Comes supplied with saddle with bolts. Drilled with M10 fixing holes.



code	description	price
DOU33300	300 mm stand off	£27.54
DOU33310	100 mm stand off	£26.69

### Angle Iron Bracket

Made from 50 x 50 mm angle, drilled, slotted and braced. Use in conjunction with a Universal Clamp [page 253] to secure 48.3 mm tubes.



code	length	height	price
DOU34000	450mm	450mm	£41.26



# TUBES & CLAMPS

## Slotted Wall Brackets

Three sizes of very smart and versatile laser cut brackets.



code	length	height	THK	WLL	price
DOUT84105	200mm	125mm	43mm	25kg	£31.78
DOUT84106	350mm	150mm	43mm	25kg	£36.96
DOUT84107	500mm	200mm	43mm	25kg	£42.08

## Face Fixing Bracket

Made from 25 x 25 mm angle. Use in conjunction with a Universal Clamp [page 253] to secure 48 mm tubes.



code	height	price
DOU34100	195mm	£21.48

## Stud Hanger

Holds a 48 mm Ø tube at right angles to M12 studding. A good method for levelling fixed flying bars from an uneven ceiling.



code	fits tube Ø	price
DOU30300	48mm	£10.53

## Parallel Pipe to Pipe Brackets

See also Boom Arms and double-ended Hook Clamps [page 373].



code	centres	price
DOU30900	225mm	£18.75
DOU31000	300mm	£19.41

## Wall Hanger

A simple wall bracket. Ideal for fixing a 48 mm tube between two fixed walls [pair required, sold each]. Drilled with 4 x 12.5 mm Ø fixing holes. The plate measures [w x h] 130 x 140 mm. The generous depth of the cup [75 mm] allows for a bit of play in the length of the tube.



code	weight	SWL	fits tube Ø	price
DOUT30409	1.1kg	100kg	48mm	£19.11

## SWIVEL ARMS

### Swivel Arms

Designed to allow a 25 mm Ø tube to be swivelled and held in place by the friction from the spring action. Ideal for leg masking. These units can also be attached to Halls T60 [and T70] Master Carriers so wings can track on and off stage and swivel.



code	description	price
HAL3605	Swivel for fitting to 48 mm tube [shown]	£63.76
HAL3614	Swivel with 2 m arm for 48 mm tube	£93.95
HAL3607	Swivel with 2 m arm for 75 - 150 mm girder	£121.79

## U-BOLTS & HOOK BOLTS

### Hook Bolts – J-Bolts

Technically these are commercial quality mild steel J-bolts. They are supplied with a nut and are bright zinc-plated. Use for fixing girder brackets to studio grids made from inverted channels. Closing down measurements may vary, please phone if crucial. All sizes are M8 except the 100 mm which we have specially made for us in M10 to suit most girder brackets. Other sizes can be made to order in minimum quantities of 200. Not for lifting.

For Hook Masonry Fixings see page 287.



code	diameter	hook length	thread length	price
FIX3082	M8	60mm	45mm	£0.35
FIX3081	M8	80mm	53mm	£0.45
FIX3083	M8	100mm	50mm	£0.49
FIX3092	M10	100mm	75mm	£1.50

### U-Bolts and Threaded Plates

Holds boards to pipes securely. The plates have a centred M10 or M12 threaded hole. WLL 140 kg



code	threaded hole	fits tube Ø	price
DOUT32400	M10	32mm	£8.36
DOUT32500	M12	32mm	£8.35
DOUT33400	M10	48mm	£6.88
DOUT33500	M12	48mm	£6.88

### U-Bolts and Saddle

Designed for use on Doughty Multibeam Brackets [page 236] but they have many other uses.



code	fits tube Ø	material Ø	price
DOUT56900	50mm	8mm	£1.86

### U-Bolts Only

Bright zinc-plated U-bolts. These are no longer supplied complete with nuts which need to be ordered separately [page 283]. The popular 51 mm Ø size [+] is also available with extended legs.



code	A [Ø]	B	C	D	price	50+
FIX3127	21mm	48mm	30mm	6mm	£0.35	
FIX3128	27mm	53mm	30mm	6mm	£0.44	
FIX3129	34mm	60mm	40mm	6mm	£0.54	
FIX3130	44mm	70mm	40mm	10mm	£0.79	
FIX3131	51mm	80mm	40mm	10mm	£0.89	£0.73
FIX3131L	51mm	127mm	85mm	10mm	£1.38	£1.25
FIX3132	60mm	90mm	40mm	10mm	£0.92	
FIX3133	76mm	105mm	40mm	10mm	£1.15	
FIX3134	90mm	115mm	40mm	12mm	£1.82	

## TUBE ACCESSORIES

### Plastic End Caps

For steel and aluminium tubes, all in black. Other sizes can be supplied to order. Flints sold over 15,000 inserts for 48.3 mm scaffold tube last year! Most popular inserts are marked with a + for easy restocking.

code	description	fits wall THK	price	100+
FHS923	Inserts for 33.7 mm scaff tube [Size 6]	2.6-4mm	£0.22	
FHS921	Inserts for 48.3 mm scaff tube [Size 8]	3.2-5mm	£0.42	£0.29
FHS559	For 20 mm conduit [gauge 0.8 - 2 mm]	20mm	£0.28	£0.25
FHS561	For 25 mm conduit [gauge 0.8 - 2 mm]	25mm	£0.30	£0.27
GEN500	1" x 1" square insert	1-2.5mm	£0.23	
GEN510	40 x 40 mm square insert	1.25-2mm	£0.32	
GEN511	40 x 40 mm square insert	2.6-4mm	£0.38	
GEN512	25 x 25 mm square insert	2-3.2mm	£0.17	
GEN502	2" x 2" square insert	2-3.2mm	£0.59	
GEN503	50 x 25 mm rectangular insert	1.25-3mm	£0.34	
FHS920	Boot for 48.3mm scaffold tube		£0.50	
FHS922	Boot for 50.8 mm scaffold tube		£0.69	



## WELDING ELBOWS

### Welding Elbows

Right-angle bends in mild steel ideally suited for smooth handrail applications. May be trimmed back to achieve other angles.



code	description	outside Ø	price
SCF900	Fits Size 6	33.7mm	£2.96
SCF904	Fits Size 8	48.3mm	£3.92

## WELD DISCS

### Weld Discs [Blanks]

Apart from blanking off tube ends, these mild steel discs make very useful large round feet on steel tube legs preventing floor damage and allowing small frames to stand upright by themselves prior to bolting.



code	thickness	diameter	price	100+
SCF910	3mm	41mm	£1.21	£1.09
SCF912	5mm	60mm	£1.71	£1.55
SCF914	6mm	100mm	£2.81	£2.53

## UNISTRUT SOCKETS

### Unistrut Sockets

Make your life a lot easier. Our Long Reach 13 x 17 podger [page 339] does get inside the channel but it scrapes on the side. These sockets have a reduced waist especially designed for an easy fit in 41 mm Unistrut Channel. M10 [17 mm] socket with 1/2" drive.

Maximum torque: 30 Nm. Weight: 130 g.



code	socket	drive	max torque	price
TOL17AF	M10	1/2"	30Nm	£27.45

## UNISTRUT

### Unistrut

Genuine Unistrut pre-galvanised channel 41 x 41 mm. Widely used for mounting fittings and ideal for mounting limit switches etc. which may require some final adjustments. Available plain for you to drill your own slots or weld in place; or as the popular pre-slotted version. For our delivery policy regarding 6 m lengths see page 249.

NB: To access the bolt heads you will find a conventional socket will be too fat to get into the channel. Our Long Reach Podger 13 x 17 [POD1317L] will just get into the channel [page 339] but we also stock a special socket with a reduced waist which is ideal. See below.



code	description	length	price
UNIP10003	PI000 [plain]	3m	£29.95
UNIPS10003	PI000 [slotted]	3m	£29.95
UNIP10006	PI000 [plain]	6m	£57.35
UNIPS10006	PI000 [slotted]	6m	£49.95

### Channel Nuts and Zebedees

Plain channel nuts or clamping nuts with long springs with a bright zinc-plate finish. Fits the channels shown above. Boing... time for bed...

Check out the Zip Clip STRUT-LOCK on page 196.



code	Type	size	price	100+
UNIPNP10ZP	Channel Nuts	M10	£0.29	£0.26
UNIPNP12ZP	Channel Nuts	M12	£0.59	£0.53
UNIPNL10ZP	Zebedees	M10	£0.35	£0.32
UNIPNL12ZP	Zebedees	M12	£0.85	£0.76

## CASTOR SELECTION

Nearly every theatrical production is going to involve castors. Directors will want castors that are invisible to the audience and move silently, engineers will want castors that will be reliable and will bear the loads placed on them. The crew will want castors that move with the minimum of effort, avoid the "shopping trolley" effect and maybe even without brake pedals that disappear under the truck. Selecting the right castor is all important.

To make the Director happy, Flints stock small castors that are all black with polyurethane covered wheels for quiet operation. To make the stage engineer happy, despite their size, they are capable of bearing significant loads.

To make the crew happy, many of our castors have wheels with a curved profile to reduce friction on the floor, making them easier to push.

As well as the load, think of the floor. Burghard Busch of Rader Busch has a golden rule: Soft floor - hard wheel, hard floor - soft wheel. For example, nylon wheels are cheap but will be very noisy on a hardboard-topped stage. Rubber wheels on a PVC dancefloor will be very quiet, but very hard to push.

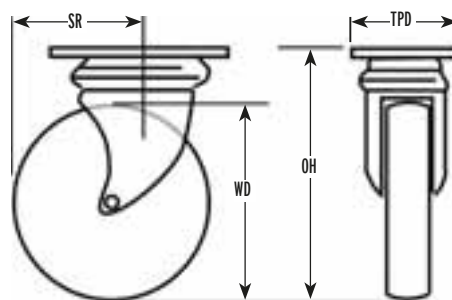
Wheel size is also important. Always choose the largest wheel diameter that you can. Large wheels help reduce rolling resistance and can cope with rougher surfaces including tracks.

Think too of the poor touring technician. Rader Busch have two "families" of top plate. Nearly all of our Rader Busch range of castors and scenshifters have top plates from one of those families meaning that if a castor needs replacing, the existing bolt holes can be re-used.

The dimensions on this illustration are used throughout this section of the catalogue and we are working to have AutoCad drawings available on our website for all Rader Busch castors. Happy rolling!

WD = Wheel Diameter  
OH = Overall Height  
SR = Swivel Radius  
TW = Tread Width  
TPD=Top Plate Dims

All measurements are in millimetres



## BLACK THEATRE CASTORS

### Low Level 35 mm Black Castors

Neat, well-designed theatre castors, attractive enough for other uses like furniture making. Black sheet steel frames with a double ball race in the swivel head for smooth movement. Wheels are black polyurethane on a solid aluminium core with ball bearings. They are a hard-wearing 92A on the Shore scale.

✓ Discreet - only 52 mm high ✓ Non-marking ✓ Hard-wearing  
✓ German quality



35mm Swivel



35mm Swivel Braked



35mm Fixed



code	Type	WD	max load	OH	TW	TPD	hole centres	offset	price
CAS35KUPL	Swivel	35	100kg	52	27	60 x 60	38 x 38 / 47 x 47	15	£26.95
CAS35KUPLB	Swivel Braked	35	100kg	52	27	60 x 60	38 x 38 / 47 x 47	15	£33.50
CAS35KUPLF	Fixed	35	100kg	52	27	60 x 60	38 x 38 / 47 x 47	15	£23.60

### 50 mm Black Castors

We've had so many requests for this size of castors in an all black finish, we thought it was about time we added them into the catalogue to complete our Black Theatre Castors range. Wheels are black polyurethane on a solid aluminium core with ball bearings. They are a hard-wearing 92A on the Shore scale. The housing is made of black sheet steel.

✓ Discreet ✓ Non-marking ✓ Hard-wearing ✓ German quality



50mm Unbraked



50mm Braked



50mm Fixed

code	Type	WD	max load	OH	TW	TPD	hole centres	offset	price
CAS50KUPL	Unbraked	50	150kg	72	40	60 x 60	38 x 38 / 47 x 47	31	£29.98
CAS50KUPLB	Braked	50	150kg	72	40	60 x 60	38 x 38 / 47 x 47	31	£33.80
CAS50KUPLF	Fixed	50	150kg	72	40	60 x 60	38 x 38 / 47 x 47	31	£27.75

### Super Quiet Light-Duty Black Castors

The frames are black sheet steel with double ball races in the swivel head. They are fitted with polyurethane tyres on a tough nylon hub with ball bearings giving super smooth running. The wheels are exceptionally quiet and non-marking, even on dance floors. Soft 80A on the Shore scale. The braked version locks both the wheel and the swivel. Available in a single or double wheel version.

✓ Non-marking - even on dance floors

✓ Great choice for all light loads ✓ German manufacturing quality



75mm Single Wheel Swivel



75mm Single Wheel Swivel Braked



75mm Single Wheel Fixed



75mm Double Wheel Swivel Braked

code	Type	WD	max load	OH	TW	TPD	hole centres	offset	price
CAS7523N	Single Wheel Swivel	75	60kg	100	23	60 x 60	38 x 38 / 46 x 46	28	£17.05
CAS7523NB	Single Wheel Swivel Braked	75	60kg	100	23	60 x 60	38 x 38 / 46 x 46	28	£19.55
CAS7523ND	Double Wheel Swivel	75	80kg	100	23	60 x 60	38 x 38 / 46 x 46	28	£33.45
CAS7523NDB	Double Wheel Swivel Braked	75	80kg	100	23	60 x 60	38 x 38 / 46 x 46	28	£36.00
CAS7523NF	Single Wheel Fixed	75	60kg	100	23	60 x 60	38 x 38 / 46 x 46	28	£19.95

## Heavy-Duty Black Euro Castors

These tough castors represent fantastic value and would be the perfect choice for the majority of stage uses. The extra tough steel frame is finished in black. The swivel head has double ball races. The wide wheel has black polyurethane tyres on a black cast iron hub with twin ball races. The castor has been developed to be a main workhorse of European theatre stages. Available as a swivel castor or a swivel castor with wheel and swivel brake. They are a hard-wearing 92A on the Shore scale.

- ✓ Real value for a very tough castor – 350 kg loading for well under half the price of lower rated castors
- ✓ All-black frame, wheel and tyre
- ✓ Definitive choice for most theatre trucks
- ✓ Assembled in Germany



100mm Swivel



100mm Swivel Braked



code	Type	WD	max load	OH	TW	TPD	hole centres	offset	price	20+
CAS80BEC	Swivel	75	350kg	125	40	140 x 110	105 x 80	48	£24.30	£19.89
CAS80BECB	Swivel Braked	75	350kg	125	40	140 x 110	105 x 80	48	£36.95	£33.25
CAS80BECF <b>NEW</b>	Fixed	75	350kg	125	40	140 x 110	105 x 80	48	£23.50	£21.15

## LIGHT-DUTY CASTORS

### Light-Duty Castors

This range of industrial castors all have pressed steel top plates with plain bearings. Wheels are polypropylene, or a quiet non-marking rubber tyre on plastic with a steel core. The Swivel Bolt-hole and Swivel Braked Bolt-hole castors have either a 10 mm or 12 mm bolt-hole. Use the Expanders below to fit them to all types of trolley.



50mm Swivel



50mm Swivel Braked



50mm Fixed



50mm Swivel Bolt-Hole



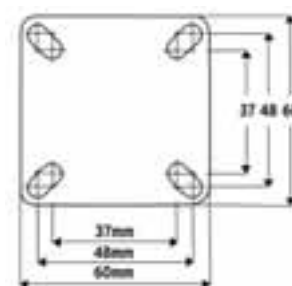
50mm Swivel Braked Bolt-Hole



75mm Polypropylene Wheel



75mm Rubber Wheel



Top Plate 75mm Swivel

Type	load [kg]			tread width				centres					price	rubber	price
	WD	PP	rubber	OH	SR	PP	rubber	TPD	median	bolt ø	offset	PP			
Swivel	50	40	50	73	50	20	17	50 x 50	35 x 35	10	25	CASLD50NS	£3.97	CASLD50RS	£3.97
Swivel Braked	50	40	50	73	73	20	17	50 x 50	35 x 35	10	25	CASLD50NB	£4.83	CASLD50RB	£4.83
Fixed	50	40	50	73	-	20	17	50 x 50	35 x 35	10	-	CASLD50NF	£3.84	CASLD50RF	£3.84
Swivel Bolt-Hole	50	-	40	71	50	-	17	-	-	10	25	-	-	CASLD50RSBT	£4.33
Swivel Braked Bolt-Hole	50	-	40	71	73	-	17	-	-	10	25	-	-	CASLD50RBBT	£6.18
Swivel	75	50	50	100	69.5	21	21	60 x 60	43 x 43	10	32	CASLD75NS	£5.14	CASLD75RS	£5.14
Swivel Braked	75	50	50	100	90	21	21	60 x 60	43 x 43	10	32	CASLD75NB	£6.18	CASLD75RB	£6.18
Fixed	75	50	50	100	-	21	21	60 x 60	43 x 43	10	-	CASLD75NF	£4.94	CASLD75RF	£4.94
Swivel Bolt-Hole	75	-	50	95	69.5	-	21	-	-	10	32	-	-	CASLD75RSBT	£5.15
Swivel Braked Bolt-Hole	75	-	50	95	90	-	21	-	-	10	32	-	-	CASLD75RBBT	£6.18
Swivel Bolt-Hole	100	-	80	128	88	-	27	-	-	12	38	-	-	CASLD100RSBT	£10.06
Swivel Braked Bolt-Hole	100	-	80	128	105	-	27	-	-	12	-	-	-	CASLD100RBBT	£11.13

### Inserts for Bolt-Hole Castors

These expanders can be fitted to any single bolt-hole castor. Use for round or square tubing on all types of trolley. All the expanders have a 10 mm bolt. The 50 mm and 75 mm Ø bolt-hole castors above have a 10 mm threaded hole and will fit perfectly. Meanwhile, the 100 mm Ø bolt-hole castors above have a 12 mm threaded hole and the 12 mm extender will come as a kit with a reducer washer to ensure a snug fit.



Round Bolt



Square Bolt



Expanders for 12mm Bolt-Hole castors come with a reducer washer

fits internal tubes	height	round - fits 10mm thread	price	square - fits 10mm thread	price	round - fits 12mm thread	price	square - fits 12mm thread	price
21.5-24mm	90mm	CASER24	£4.33	CASES24	£4.33	CASER24K	£3.50	CASES24K	£3.50
24-27mm	90mm	CASER27	£4.33	CASES27	£4.33	CASER27K	£3.50	CASES27K	£3.50
27-30mm	90mm	CASER30	£4.33	CASES30	£4.33	CASER30K	£3.50	CASES30K	£3.50

Wheel Type	For	Against	Typical Use
Polypropylene [PP]	Economical and non-marking	Too noisy for use during performance	Small items of furniture, small boxes, light trucks
Grey Rubber	Cheap, quiet, non-marking, floor protecting	Light duty use only	Light trucks and furniture used during performance



## SPRING MOUNTED CASTORS

### Spring Mounted Castors

Side mounting rubber castors that are also spring mounted so great for handling uneven surfaces. The side mounting plate also means you have easy access for installing & de-installing your castors, why not treat yourself to a pair of Viking Arms [page 328] a powerful, yet easy to use, squeeze trigger jack to make your life even easier?

code	weight	load	top plate length x width	median hole centres length x width	price
CASFC50F	0.26kg	40kg	60 x 48mm	22.5 x 40mm	£18.28
CASFC50S	0.35kg	40kg	60 x 48mm	22.5 x 40mm	£17.42



## MEDIUM TO HEAVY-DUTY CASTORS

Wheel Type	For	Against	Typical Use
Nylon	Cheap, very strong, clean, non-marking, light	Too noisy for use during performance	Slave trucks, scaffolding castors, heavy-duty storage trolleys not used during performance
Polyurethane [Revvothane] on cast iron	Quiet, high tear strength, 10 times the working life and 3 times the load carrying of rubber, low rolling resistance, excellent recovery from static periods	More expensive	All uses but especially heavy scenery used during performance
Blue elastic rubber	Soft, very quiet, non-marking, floor protecting	Limited range from stock	Typically used as flight case castors
Black rubber on plastic	Cheap, quiet, floor protecting, medium-duty	May leave marks	Medium weight trucks where the budget is tight
Black polyurethane [PU]	Soft, very quiet, non-marking, floor protecting	The softer wheels adds a little rolling resistance	All performance stage use especially when the wheels may be seen and silence is required



100mm Swivel



100mm Swivel Fixed



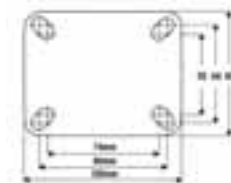
100mm Fixed



80mm Nylon Wheel



80mm Polyurethane Wheel



Top Plate 80mm, 100mm Swivel

### Medium to Heavy-Duty Castors

This range of industrial castors all have pressed steel top plates. The wheels are either nylon with plain bearings, or a tough polyurethane [PU] tyre on cast iron with ball bearings. To decide which one to choose have a look at the table above.

Type	WD	load [kg]		OH	SR	tread width		TPD	centres			nylon	price		price
		nylon	PU			nylon	PU		median	bolt ø	offset		PU		
Swivel	80	200	200	106	77.5	35	30	105 x 85	80 x 60	10	37.5	CASMD80NS	£9.75	CASMD80PS	£27.82
Swivel Braked	80	200	200	106	125	35	30	105 x 85	80 x 60	10	37.5	CASMD80NB	£12.99	CASMD80PB	£30.27
Fixed	80	200	200	106	-	35	30	105 x 85	80 x 60	10	-	CASMD80NF	£8.98	CASMD80PF	£25.70
Swivel	100	200	220	128	90	35	38	105 x 85	80 x 60	10	40	CASMD100NS	£10.20	CASMD100PS	£28.27
Swivel Braked	100	200	220	128	125	35	38	105 x 85	80 x 60	10	40	CASMD100NB	£13.46	CASMD100PB	£31.16
Fixed	100	200	220	128	-	35	38	105 x 85	80 x 60	10	-	CASMD100NF	£9.59	CASMD100PF	£26.48

## REVVO SERIES 4 MEDIUM TO HEAVY-DUTY CASTORS



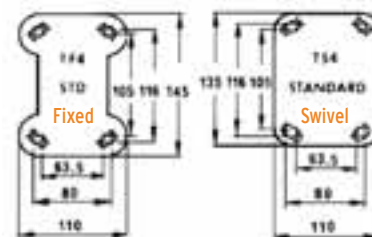
75mm Swivel Revvothane



75mm Fixed Revvothane



125mm Swivel Braked Nylon



### Revvo Series 4

Pressed steel top plate castors that reliably cope with all but the heaviest of stage loads. Swivel heads have a single ball bearing. Wheels have plain bearings and are either nylon, or a Revvothane tyre on cast iron. The brake locks both wheel and swivel with an easy-to-use foot lever which trails the direction of the travel. Fabricated castors for very heavy duties can be quickly supplied – please phone for a quotation. If you require the wheel and swivel lock to remain in a fixed position please see the Fixed Position Brake Castors [page 265] N.B. The revvothane versions come ungreased but have an oil hole for lubrication which is recommended to ensure the quietest performance.

Type	WD	load [kg]				tread width		centres			nylon	price	revvo	price
		nylon	revvo	OH	SR	nylon	revvo	TPD	median	bolt ø				
Swivel	75	160	175	114	73	35	25	135 x 110	105 x 80	10	CAS132	£12.43	CAS131	£23.20
Fixed	75	160	175	114	-	35	25	145 x 110	105 x 80	10	CAS032	£7.74	CAS031	£19.03
Swivel	100	225	250	139	91	35	29	135 x 110	105 x 80	10	CAS140	£14.11	CAS141	£27.20
Swivel Braked	100	225	250	139	91	35	29	135 x 110	105 x 80	10	CAS140L	£28.62	CAS141L	£41.99
Fixed	100	225	250	139	-	35	29	145 x 110	105 x 80	10	CAS040	£11.36	CAS041	£22.83
Swivel	125	250	265	164	105	35	32	135 x 110	105 x 80	10	CAS157	£20.68	CAS154	£33.56
Swivel Braked	125	250	265	164	105	35	32	135 x 110	105 x 80	10	CAS157L	£27.91	CAS154L	£44.87
Fixed	125	250	265	164	-	35	32	135 x 110	105 x 80	10	CAS057	£13.85	CAS054	£29.18

## SCENE SHIFTERS [TURTLES]

These castors solve the various problems that can be encountered when using traditional swivel castors. They permit heavy trucks to change rolling direction, even from stationary, without having to exert the extra effort normally needed to change wheel direction, the so called "shopping trolley" effect. They allow trucks to enter from the wings, stop centre stage, and leave upstage. The triple wheels also spread the load over a larger stage area reducing the problems caused by high point loads on soft floors. They can really help when trying to align trucks ready for bolting-up when the height inaccuracies, caused by high point loading on spongy stages, often cause delays to scene changes as staff are required to fetch crow bars to level up the trucks. Finally, they make good track jumpers. Flints stocks many types of turtles and sell them at prices well below list. We also stock the pneumatic Hebewunder lifting castors [see next page] which allow the scenery trucks to sit firmly on the stage and lift to move.

### Micro Scene Shifter [up to 300 kg]

This Micro Sceneshifter has the same plate size (105 x 80 mm) as a standard Flight Case Castor but has twice the load capacity (300 kg) and much greater manoeuvrability. Its small form factor means you can get the all the benefits of a scene shifting turtle without sacrificing added height or protruding wheels.

code	WD	max load	OH	TW	TPD	price
CASM33SS	33mm	300kg	76mm	27mm	105 x 80mm	£87.20



NEW

### Mini Scene Shifter [up to 300 kg]

Very popular units which are ideal for smaller sized trucks. The smaller swivel radius helps to keep the wheels nearer to the edge of the truck and thus improve the stability. Although reduced in size, these Scene Shifters will take very high loads. Mini 35 mm wheels with polyurethane tyres on plastic hub with ball bearings.

✓ Help to improve stability ✓ Very low overall height ✓ Lightweight

code	WD	max load	OH	SR	TW	price
CASMINISS	35mm	300kg	85mm	95	28mm	£86.59

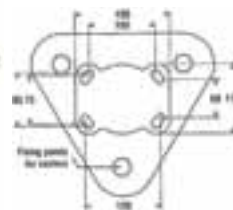


# CASTORS

## Low Level Scene Shifter [up to 360 kg]

Choose this for heavy trucks which require a low overall height for sightline and access purposes. Top plate with twin wheels with polyurethane tyres on a cast iron hub with plain bearings. This is the same basic unit as the Heavy Duty Standard Scene Shifter below but fitted with low level twin wheeled castors.

code	WD	max load	OH	SR	TW	price
CAS601	50mm	360kg	96mm	154	2 x 14mm	£149.08



## All Black Scene Shifter [up to 360 kg]

A similar version to the popular 75 mm Super Quiet Scene shifters below, and only slightly taller than the low-level scene shifter above, with the added advantage of an all-black wheel construction. Frame of black sheet steel with double black polyurethane wheels, with a polyamide hub with ball bearings to give super smooth running. The softer Shore rating of 80A helps to also keep the noise down, and prevent marking on dance floors. A really great choice!

✓ Super quiet ✓ Non-marking ✓ Low friction ✓ German quality ✓ Lower profile

code	WD	max load	OH	TW	TPD	hole centre	price
CAS7524	50mm	360kg	101mm	2 x 20mm	105 x 80mm	80 x 60mm	£123.10

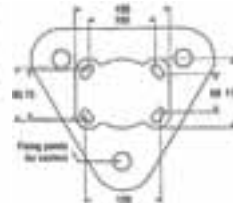


## Super Quiet Black Scene Shifter [up to 240 kg]

Choose these units for very quiet and easy moving trucks which will glide silently across the stage. Frame of black sheet steel with double ball races at the swivel head. They are fitted with three sets of twin wheels with polyurethane tyres on a tough nylon hub with ball bearings giving super smooth running. The black wheels have a slightly softer Shore rating than most castors at 80A which not only keeps the noise right down but helps to prevent any marking on dance floors.

✓ Super quiet ✓ Non-marking ✓ Low friction ✓ German quality

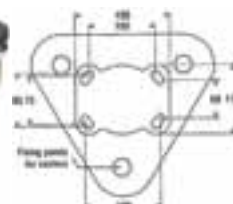
code	WD	max load	OH	TW	SR	TPD	hole centre	price
CAS7523T	75mm	240kg	125mm	2 x 23mm	381	105 x 85mm	80 x 60mm	£159.00



## Standard Scene Shifter [up to 460 kg]

This is the main workhorse of the Scene Shifter series. Fitted with tough but quiet 100 mm wheels with polyurethane tyres on a cast iron hub with plain bearings. Choose this for all general and heavy-duty uses.

code	WD	max load	OH	TW	SR	price
CAS602	100mm	460kg	168mm	29mm	218	£143.08



## Economy Black Scene Shifter

Competitively priced all black sceneshifter with a whopping 1000 kg load capacity. Mounted on to a large triangular plate to spread the load with high quality black polyurethane wheels ensure a smooth and quiet operation.

code	WD	max load	OH	TW	TPD	price
CASE100SS	100mm	1000kg	166mm	40mm	105 x 80mm	£109.00



NEW

## Berlin Opera Scene Shifter [up to 1000kg]

This Sceneshifter, engineered for the Berlin Opera, has shrunk down the large triangular plate commonly fitted to high load sceneshifters, meaning that it can be fitted much closer to the edge of your piece of scenery, thereby increasing stability. The smaller form factor means you don't have to sacrifice manoeuvrability for space. Features Vulkollan tyres for unrivalled abrasion resistance, quiet operation, resistance to oil/grease and non marking on floors.

code	WD	max load	OH	TW	TPD	price
CASB100SS	100mm	1000kg	165mm	40mm	105 x 40mm	£356.18



NEW

**Need a drawing? AutoCad files can be downloaded from our website for our most popular castors and sceneshifters**

## LIFTING CASTORS

### Hebewunder [up to 400 kg]

The Hebewunder is the perfect choice of castor to move heavy scenic trucks around the stage. Probably the biggest advantage of using the Hebewunder over braking castors is the fact that the truck will sit firmly on the floor when it is lowered into place. This ensures a well spread load and therefore great stability with no chance of accidental movement. Leaving built scenic pieces on braked castors during performance can result in the floor flexing due to the high point loading. This could translate into "wobbly scenery" from the audience's point of view or delayed scene changes because of the difficulty to marry up bolt holes or fixings. Each 50 mm Hebewunder can lift 400 kg by means of compressed air [300 kg for 33 mm version]. The triple swivel castors have the advantages of ensuring a minimal offset for easy initial rolling, good load spreading and excellent track jumping capabilities. The 50 mm castors employed on these units have solid aluminium wheels fitted with bearings and 92° Shore Vulkollan tyres. This allows great load bearing while maintaining a useful low overall height. The 33 mm version has super quiet black polyurethane tyres that have a reduced load limit but are still non marking and hard wearing.

Flints can supply all the accessories necessary to connect the units, a few are listed below, the rest and more info can be found in the Castors Appendix in the Our Catalogue section of our website.



This gizmo uses compressed air to lift scenery over 40mm

code	description	WD	max load	OH		TW	width	TPD length [inc. air supply]	centres	holes Ø	price
CASHW50		50mm	400kg	147mm	188mm	40mm	220mm	330mm	180 x 150mm	11.5mm	£423.52
CASHW50K	Kit of 4 Hebewunder castors and all necessary components to create a 4-Hebewunder setup										£2,039.97
CASHW50K2	Kit of 6 Hebewunder castors and all necessary components to create a 6-Hebewunder setup										£2,895.22
CASHW33 <b>NEW</b>		33mm	300kg	91mm	126mm	27mm	220mm	330mm	180 x 150mm	11.5mm	£336.88
CASHW33K <b>NEW</b>	Kit of 4 x 33 mm Hebewunder castors and all necessary components to create 4 - Hebewunder setup										£1,563.20
CASHW33K2 <b>NEW</b>	Kit of 6 x 33 mm Hebewunder castors and all necessary components to create 6- Hebewunder setup										£2,200.72

### Hebewunder Brake

This new addition to the Hebewunder range is in effect the opposite of the castors (you inflate to stop rather than go). Mounted under the stage truck, once in the correct position the pneumatic brake can be activated to lift the whole structure so it stays in place.



**NEW**

Hebewunder Brake

code	max load	top plate width	lifting height	hole centres Ø 1	hole centres Ø 2	price
CASPNB400	400kg	220mm	40mm	180mm	150mm	£340.60



Fill with air to lift your piece of scenery so it will not move



Deflate brake to move scenery freely. The plates on either side of the pneumatic pillow are held in place with a lateral spring to keep the plates together so that they don't come into contact with the floor when deflated.



Inflate and deflate to your heart's content or until you run out of air.

### Hebewunder Accessories

code	description	price
CASHW3W	3-way Valve 1/8"	£68.73
CASHWHO	Air Hose 6x4 - 25 m	£19.30
CASHWCO	Connector 1/8"	£2.63
CASHWSI	Silencer	£2.89
CASHWTC	T-Connector	£5.37
CASN5BA <b>NEW</b>	Quick Adapter	£56.39



3-way Valve 1/8"



Air Hose 6x4 - 25 m



T-Connector



# CASTORS

## Lifting Wheel with 80 mm swivel castor [up to 130 kg]

These lifting wheels are so useful, you'll be amazed you ever got by without them. The wheel can be levered down to engage with the floor, or up to remove the rolling effect. When the wheel is lowered it will raise up the attached structure by 27 mm. Made from sturdy zinc plated metal, with a 65° shore elastic rubber wheel on a polyamide core and single ball bearing. There are 3 proposed applications:

**As a truss mover:** by using the truss attachment, truss frames can be lifted and rolled from the stage

**As a stage leg riser:** instead of using a traditional scaffold castor inserted into the bottom of the stage leg, this system allows the user to lower the stage legs to the ground providing greater stability. NB 2-4 half couplers will be required for round stage legs.

**As a box riser:** the mounting plate allows the user to fix the lifting wheel to the side of any wooden box, and easily raise it up to roll into the desired position.

Full technical specifications can be found on our website



Shown above with mounting plate to be used as a box riser



Shown above with truss attachment for moving truss



Shown above with half couplers for connecting to a stage legs

code	description	top plate length	top plate width	tread width	overall height min	price
CAS658	Main Unit	80mm	60mm	36mm	303mm	£195.75
CAS633	Truss Attachment					£18.29
CAS645	Mounting Plate					£24.97
CAS590	Half Coupler					£19.03

## SCAFFOLD CASTORS

### Scaffold Castors

Flints stocks the versatile plug type scaffold castors which are suitable for converting steel rostra into slave trucks [with the addition of a short scaffold sleeve if going directly into the rostra corner post]. Fitted with strong nylon wheels [N.B. These may be supplied red]. Has a safe working load (SWL) of 535 kg.

NB: Due to manufacturing tolerances on the plug and the tube, the castor can sometimes be a slack fit.

### Conversion Sleeve

A 127 mm length of scaffold tube to convert the plug to fit the corner posts of Steeldeck/Megadek rostra systems. Not needed when the castors are mounted on scaffolding legs.



the 125 mm braked castor



the 150 mm braked castor



code	Type	plug sizes	size	tread width	overall height [ex plug]	wheel ø	price
CAS316	125 mm nylon castor with brake	38.35 x 58	125mm	38mm	157mm	125mm	£44.74
CAS317	150 mm nylon castor with brake	38.35 x 58	150mm	40mm	180mm	150mm	£56.36

code	Type	price
SCF092	Conversion sleeve	£1.10

## FLIGHT CASE CASTORS

### Flight Case Castors

These rugged top quality castors have blue elastic rubber tyres which are quiet and non-marking. Ideal for flight cases but also useful whenever noise is a concern. Fitted with roller bearings.

Top plate: 105 x 80, Bolt centres: 80 x 60 mm, Bolt holes Ø: 8 mm NB: The fixed version has a 3 mm height difference.



### Black Flight Case Castors

Robust all black flight case castors with elastic rubber wheels. These hardy castors are durable enough to stand up to the day-to-day use of a touring flight case or as an economical scenery castor.

Top plate: 105 x 80, Bolt centres: 80 x 60 mm, Bolt holes Ø: 8 mm



TRADELINE		Buy set of 4 - two swivel & two braked	
		CAS347K	£33.98

code	description	WD	max load	OH	SR	price
CAS3470	Swivel	100mm	150kg	125mm	85mm	£10.45
CAS3477	Braked	100mm	150kg	125mm	85mm	£12.05
CAS3478	Fixed	100mm	150kg	128mm	85mm	£10.30



code	description	WD	max load	OH	SR	price
CASBFCS	Swivel	100mm	150kg	125mm	80mm	£15.50
CASBFCB	Braked	100mm	150kg	125mm	80mm	£18.50

TRADELINE		Buy set of 4 - two swivel & two braked	
		CASBLKFLIGHTK	£65.45

## Sprung Flight Case Castors

This Flight Case Castor has been engineered to keep your flight case rolling in the right direction. These castors swivel as they need to but are sprung so they return to the same position. This stops your castors spinning uncontrollably (aka the shopping trolley effect) and helps you guide the direction of travel with ease.

What an innovation!

Top plate: 105 x 80, Bolt centres: 80 x 60 mm,

Bolt holes Ø: 8 mm



NEW

code	description	max load	TPD	WD	TW	OH	price
CAS3479	Swivel	150kg	105 x 80mm	100mm	35mm	125mm	£33.08
CAS3479B	Braked	150kg	105 x 80mm	100mm	35mm	125mm	£33.08

## SOFT BRAKE BALLET CASTOR

### Soft Brake Ballet Castor

Heavy duty braked castors with a brake that is so soft it can be activated by a bare footed or ballet shoe donned performer (hence the name). It's also so quiet that you can use the brake mid performance without making a sound.

Have you every tried to pirouette in steel toe cap boots? Difficult but not impossible...

Bolt holes Ø: 8 mm



NEW

code	max load	TPD	TW	WD	OH	price
CASHBC80B	100kg	95 x 70mm	30mm	80mm	117mm	£22.88

## FIXED POSITION BRAKES

### Fixed Position Brake Castor

Generally, the foot-operated brakes on swivel castors swivel with the wheel so they trail the direction of travel. If the wheels are easily accessible this is not generally too much of a problem, especially if only two brakes are needed. However, stage trucks are generally designed to hide the castors from the audience making access to the brakes very difficult. If the truck needs positioning in view of the audience it can get messy! These castors are designed to avoid this familiar problem. The foot operated lever brake will lock off both the wheel and swivel but it remains fixed to the top plate. Your carpenters or metal fabricators will be able to position the castor so the lever neatly protrudes from the rear of the truck. A little bit of luminous tape on the lever and your trucks can be swiftly locked off even in a quick blackout. Top quality German manufacture. We can now also offer an additional directional lock for the all black fixed position castor, when engaged, it locks the direction of the wheel to 4 different positions. The lock is fixed in place via the bolt holes on the fixing plate so no additional bolts are needed.

SPECIFICATION: Original: Top plate size: 135 x 105 mm. Bolt centres: 105 x 80 mm. 88° Shore. 40 mm Vulkollen wheel. All Black Version: Top plate size: 135 x 110 mm. Bolt centres: 105 x 80 mm. 92° Shore. 50 mm wide polyurethane wheel.



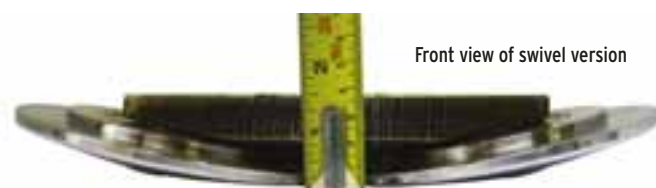
code	descr.	WD	max load	WT	TW	OH	price
CASFPB		80mm	250kg	2.25kg	40mm	125mm	£119.55
CASFPBN	All Black	75mm	350kg	2.3kg	50mm	125mm	£125.00
CASFPDIRB	NEW Directional lock for CASFPBN						£21.35

## LOW LEVEL CASTORS

### Lo-Line® Very Low Level Heavy-Duty Castor

Every now and again you come across some products of such brilliance that you wonder how you ever managed without them. These castors designed by the legendary Mike Barnett solve the age-old problem of theatre trucks having to be 150 mm high just to accommodate decent castors. Now, with a bit of ingenuity, you can build a truck just 40 mm high with a weight loading on each swivel Lo-Line® unit of up to 350 kg! These ingenious units use 130 mm diameter steel wheels canted over so that the overall height is just 34 mm. Fitted with special deep grooved ball bearings which are sealed for life. The 16 mm thick top plate can be welded or drilled and tapped to secure the units to your trucks. Available in four types. Copyright: M.Barnett.

- ✓ Solves sightline problems from front row seats
- ✓ Just 34 mm overall height!
- ✓ Great track jumpers
- ✓ Use the fixed version along revolve rims
- ✓ Useful for low level slave pallets
- ✓ Takes up to 350 kg (175 kg for fixed units)
- ✓ Both wheels together provide a tread width of 70 mm



Front view of swivel version

### Fixed Version

These units can be used on any truck running in a straight line or on pivot trucks with the units aligned in line with the pivot point. In particular they are perfect for use around the rims of revolves, allowing heavyduty revolves, and their surrounds, to be very low profile sometimes enabling the front row to actually see the floor! Also available in a quieter version with replaceable nylon inserts.



Top view of fixed version

code	description	WD	max load	WT	TW	OH	price
CASMBLLCF		130	175kg	1.25kg	35	34	£198.00
CASMBLLCNF	Nylon insert version	130	175kg	1.25kg	35	34	£198.00

### Swivel Version

For all stage use. Also available in a quieter version with replaceable nylon inserts in the wheels.

See also Flying Saucers, and Lazy Susans on the next page.



Top view of swivel version



Upside down view of nylon version

code	description	WT	TW	OH	WD	SR	price
CASMBLLC	Steel version	4.25kg	70	34	130	140	£498.00
CASMBLLCN	Nylon insert version	4.25kg	70	34	130	140	£335.00

## Low Level Single Wheel Swivel Castor

A popular and very useful single bolt-fixing castor with a quiet polyurethane tyre and an overall height of just 59 mm. These are the same wheels used on the Mini Scene Shifter. They are supplied complete with an M10 Allen bolt leaving 20 mm of protruding thread.



code	WD	max load	TW	OH	SR	price
CAS295S	35mm	100kg	28mm	59mm	33mm	£9.99

## Low Level Twin Wheel Swivel Castors

If you need to move heavy weights but have restricted height these tough units with polyurethane tyres on cast iron wheels are ideal. We have now introduced a more economical version with nylon wheels for use when noise is not an issue.

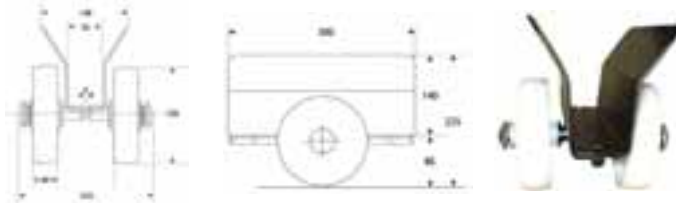


code	description	WD	max load	TW	OH	SR	price
CAS295	Poly tyre on cast iron	50mm	160kg	14mm	64mm	50mm	£29.00
CAS295N	Nylon	50mm	160kg	14mm	64mm	50mm	£15.89

## PLATE SKATES

### Plate Skates

These useful devices will grip panels up to 56 mm thick and take loads of 250 kg on their strong 150 mm Ø wheels. Ideal for moving heavy flattage or sheets of ply from lorries or around stage. Just use one in the centre of the panel and the crew can manoeuvre heavy items with ease.

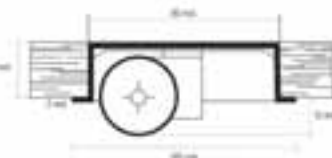


code	capacity	OH	WD	max load	price
CASPS15056	250kg	225mm	150mm	250kg	£60.90

## ROLLER INSERT CASTOR

### Roller Insert Castor

This castor can be inserted into a 24mm deep x 80 mm diameter recess providing you with a discreet double wheel swivel castor with just a 15 mm ground clearance. Effectively gliding! A common problem with Flying Saucers (on this page) is the extreme point loading. Here, the double wheel increases the surface contact minimising marking on soft surfaces. Three holes for securing into place, will take up No. 5 Wood Screws or M4 Machines Screws/Bolts.



code	WD	max load	OH	price
CAS2900080	30mm	50kg	39mm	£14.90

## ROLLERS

### Nylon Rollers

A useful range of small but heavy-duty nylon rollers. For convenience each size has the same hub width and diameter bore. The rollers are fitted with two ball races with side shields making them very free-running and quiet. The special feature is that they can be ordered with either a plain face, a V groove, or a round groove. Ideal for constructing heavy-duty travellers, small lifts, understage tracking, etc. The V-grooved rollers will run smoothly on inverted angle iron tracks. Trucks will self-centre if there is any width discrepancy between the tracks whereas flanged wheels running on square tracks may bind and screech.



code	description	wt	hub width	WD	bore Ø	price
FHSN050P	Plain	80g	25mm	50mm	10mm	£13.95
FHSN050R	Round Groove	60g	25mm	50mm	10mm	£13.95
FHSN050V	V Groove	60g	25mm	50mm	10mm	£13.95

## FLYING SAUCERS

### Flying Saucer [Ball Transfer Unit]

If you can't even fit in a low level swivel then these may help, but be careful on soft floors as they exert a very high point pressure which can cause damage. The units are really designed to be mounted facing upwards as transfer units for crates and boxes.



code	overall height	max load	price
CAS710	30mm	25kg	£4.50

## TURNTABLES

### Turntables

A range of ball-bearing turntables ideally suited for securing revolve centres to the stage but also handy for constructing stage trucks and for revolving platforms for heavy sculptures. The flanges are undrilled. Measurements in mm.



code	weight	ØA	ØB	H	G	price
CAS400L	11kg	400mm	342mm	45mm	8mm	£296.45
CAS500L	15kg	500mm	442mm	45mm	8mm	£329.35

### Grease Gun & Cartridge

Lithium Grease Cartridge for use with Side Lever Grease Gun. Ideal for the maintenance of heavy duty turntables and truck winches and many other mechanical 'metal on metal' applications.

And as that old song goes:

Grease is the word,  
It's got a groove, it's got a meaning  
Grease is important for reducing friction, preventing rust  
and keeping moving parts quiet,  
Grease is the time, is the place, is the motion  
Grease is the way we are feeling



code	description	price
SAFEP2GREASE	Lithium EP2 Grease Cartridge 400 g	£5.46
SAFGREASEGUN	Side Lever Grease Gun	£12.94



## Turntables with Fixing Plates

These discrete ball-bearing turntables are well suited for smaller revolving set pieces, furniture and sculptures. It's worth considering the intended order of assembly or you might find yourself on a sticky wicket!

SPECIFICATIONS: Bolt hole Ø: 11 mm, Material: Steel, Hole centres: A- 105 x 75 mm, B - 105 x 75 / 80 mm. Other sizes available to order.



CASI35105HD with 2 plates



CASI38109S with 1 plate

code	description	TPD	OH	max load	price
CASI35105HD	Two plate turntable	135 x 105mm	34.5mm	1000kg	£48.95
CASI38109S	One plate turntable	138 x 109mm	28.5mm	1000kg	£28.35

## Lazy Susans

These lightweight ball race rings are designed for maximum stability and smooth running. They are suitable for props and special effects. Zinc-plate finish. For heavy scenery applications choose the turntables listed above.

No one really knows why they are called Lazy Susans but the first written reference was in an advert in Vanity Fair in December 1917.



code	description	OH	Ø/width	max load	price
CAS300LS	Round	10mm	300mm	450kg	£10.80
CASI50LS	Square	10mm	150mm	225kg	£5.27
CASI00LS	Square	10mm	100mm	130kg	£3.85



## TRIPLE E UNIJACKS

The Unijack™ system was the major building block in the Triple E range when the company started. Now several thousand Unijack™s, later it is still doing the work it was designed for on stages throughout the world. The system comprises the basic lifting unit with a range of accessories that allow easy handling of heavy scenery. Designed originally for scenic trucks on theatre stages, they can also be used for all types of industrial equipment, machinery, workbenches, display cabinets and counters. All can be moved or braked with confidence. **Please Note: This range was updated recently to unify the body across all the Unijack™s and brakes.**

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### Unijack™ fitted with 2" (50mm) twin wheel castor

It is recommended that this Unijack™ be installed with a 10mm clearance between the floor and castor to ensure that the foot pedal is at its most efficient travel and lift position. This also creates a ground clearance of 24mm for the moving item. If lightweight pieces are to be moved, then clearance may be reduced to give more lift. This unit may be fitted with the UJA5 stud set and locking catch to create a lift off UJA1/5. All Unijack™s can be fitted with a keyplate for quick removal.



code	description	SWL	price
UJA4101	50 mm twin-wheeled castor	160kg	£197.00

### Unijack™ Rubber Foot Brake

Unijack™ fitted with Brake Foot is designed to hold a stage truck in position by lifting a fixed castor from the floor. The unit should be fitted so that it only lifts the fixed castor with a minimum clearance. The design recommendation is that the rubber brake foot should be installed with 3 mm more clearance than that of the truck to the floor. All Unijack™s can be fitted with a keyplate for quick removal. Please note Unijack™ has been updated in 2022. Working Load Limit: 275kg



code	description	SWL	price
UJA4301	Rubber Foot Brake	275kg	£198.00
UJA4301P01	Spare Rubber Foot		£20.00

### Unijack™ fitted with 80mm wheel castor

It is recommended that this Unijack™ be installed with a 10mm clearance between the floor and castor to ensure that the foot pedal is at its most efficient travel and lift position. This also creates a ground clearance of 24mm for the moving item. If lightweight pieces are to be moved, then clearance may be reduced to give more lift. This unit may be fitted with the UJA5 stud set and locking catch to create a lift off UJA1/5. All Unijack™s can be fitted with a keyplate for quick removal.



code	description	SWL	price
UJA4201	80 mm castor	200kg	£215.00

### Stud Set for Unijack™ Keyplate

All the Unijack™s can simply be bolted to your scenery but the big advantage of fitting this UJA4501 Stud Set to your Unijack™s is that one set of Unijack™s can be used on many pieces of scenery. The scenery will need to be fitted with a UJA4601 receiving keyplate. The steel studs are stepped from 19 mm x 6 mm to 12 mm x 4 mm to a further 10 mm x 5mm allowing them to be conveniently located into the UJA4601 keyplate. The face of the stud is also drilled and countersunk to accept an M8 countersunk cap bolt. A simple safety catch is also supplied and fastened to the top corner of the Unijack™ backplate. Once in a down position the catch will lock the Unijack™ to the UJA4601 keyplate.



code	description	price
UJA4501	Stud set for use with Unijack™s	£46.50

### Keyplate for Unijack™

These need to be fitted to your scenery to accept Unijack™s fitted with the UJA4501 Stud Sets Six 10 mm diameter holes in the plate provide sufficient fixing points and two vertical corrugations ensure there is enough clearance for the stud set.



code	description	price
UJA4601	Keyplate	£33.25



## Choice of Brakes

When braked castors are not feasible due to poor access we have a selection of separate brake units. For light trucks, a door stop with a rubber foot or even a rubber door wedge will often suffice. If positioning is crucial [and you can drill into the stage floor] then drop bolts work well. Sometimes it is worth considering not using castors and brakes but gluing carpet to the base of the truck with the pile facing downwards. This will slide easily across painted stage floors but will not need brakes. It is ideal for quietly moving furniture on carpeted ply panels. The problem is that we don't sell plywood or carpet so we wouldn't really recommend this method at all. Heavier trucks can be quickly braked by using one of the lever brakes that we stock. The action of the lever will raise the truck slightly which can cause some visible movement. Using "Wind Down" brakes will be less jerky with the added advantage that they can gently raise heavy trucks so that bolt holes align. A more positive braking action can be achieved by raising all the castors using Unijacks [page 267]. The truck frame will then sit firmly on the stage thus spreading the load. In the scene dock, heavy chain placed around castors will effectively stop any movement. Onstage the quieter Sausage Weight Bags [page 174] can be used.

## SIMPLE DOOR STOPS

### Rubber Door Wedge

Free up all those stage weights by investing in some rubber door wedges. Drilled to take a lanyard.

code	price
DOR050	£2.45



### 1 m Lengths of Black Chain

A length of chain wrapped around the wheel will effectively prevent even heavy trucks from moving. Only suitable when access to wheels is good and the noise of chains is acceptable. These chains are black japanned. See also Sausage Weight Bags [page 174].

code	Type	wire gauge	link int. length	MRL	price	15m+
WIR833	Black	6mm	33mm	140kg	£5.77	£5.20

### Tower Bolts [Barrel or Drop Bolts]

Black epoxy finish.



code	length	price
DOR110	4"	£1.76
DOR111	6"	£2.18
DOR112	8"	£3.14

### Adjustable Door Stops

Fixes to the bottom of doors. Can be used as brakes on lightweight scenery trucks.

SMALL TYPE SPECIFICATION: Backing plate: 119 x 25 mm. Raised foot remains 11 mm below plate, lowered 39 mm below max.

Fixings: 3 off No.8 [4 mm] csk screws included.

LARGE TYPE SPECIFICATION: Backing plate: 179 x 38 mm. Foot raised remains 6 mm below backing plate, lowered 40 mm below max. Fixings: 3 off No.8 [4 mm] csk screws included.

code	Type	price
DOR030	Small Type	£10.82
DOR031	Large Type	£16.48



## Lever Truck Brakes

These popular brakes have a powerful smooth action to push down the plunger and raise the truck. The threaded foot fitting allows the final height to be adjusted and then locked off. You can buy the lever action without the extension feet so that you can have the option of fitting your own plate, disc, or castor. They also make excellent levers for production assembly jigs.



code	description	movement	max load	price	10+
CAS74550	Heavy-duty lever	40mm	362kg	£29.95	£22.95
CAS74555	Heavy-duty foot		362kg	£4.70	£4.23
CAS74510	Medium-duty lever	30mm	135kg	£21.89	£16.42
CAS74515	Medium-duty foot [also fits light]		135kg	£3.95	£3.55
CAS745302	Light-duty lever includes foot		45kg	£16.25	£14.62

## Floor Lock

Excellent smooth powerful action. The unit bolts under the truck with its lever protruding through the back. The foot will cant to take up uneven floor surfaces.

SPECIFICATION: Mounting height: 150 mm. Retracted height: 125 mm.



code	load capacity	price
CAS701	2000kg	£58.89

## WIND DOWN BRAKES

### Wind Down Brake

A superb industrial-quality brake for heavy trucks. Rapid descent with just four turns to drop 25 mm. These brake units will not jerk the scenery when it is positioned in view of the audience. They can be used to anti-rake touring scenery to fit a variety of stages. Useful to level-up large trucks on uneven stage floors and to raise heavy units from the floor to access pallet handling equipment. Fitted with a square head to fit a 19 mm socket and a black nylon foot with a bronze bush. All parts replaceable. Design right applies. SPECIFICATION: Overall height: 240 mm. Movement range: 135 mm. Fixing Plate: 60 x 150 x 8 mm thick. Drilled for 4 off M10 bolts.



code	description	price
FHS080		£185.00
FHS080F	Spare foot	£33.37