

SCENERY FITTINGS

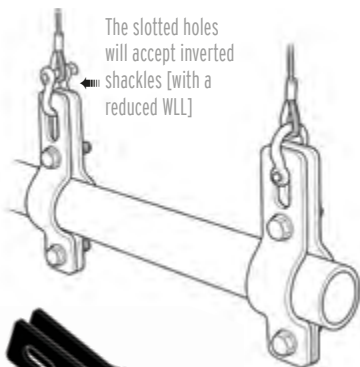
Scenery Fittings

Many of our scenery fittings are designed to be fixed to timber scenery. Often the weakest point will be the timber structure itself. Particular care should be paid to the joints supporting the bottom rails on flats. If in doubt, rails should be reinforced with stout plywood glued and screwed across the rail and stile. The scenery fittings which are suitable for lifting are shown with the "hook" symbol. We now state the loads as "Working Load Limits" rather than "Safe Working Loads". A WLL is the maximum permissible design load. Often it will be the same as the "Safe Working Load" but the SWL could be less if, for instance, a load was going to be applied at an angle, then the competent person may decide to state a SWL less than the WLL [but never higher]. The SWL should then be clearly displayed. The design calculations, which were carried out in accordance with British Standards, are being upgraded to the appropriate Eurocode References where necessary. These lifting fittings are CE marked, batch-tested, and they are marked with the Batch Identifier and the Working Load Limit. They are supplied with an EC Declaration of Conformity and instructions. We have introduced oval rings to our Hanging Clamps, Ring Plates and Ceiling Plates in accordance with BS 7906-1:2005. The Ring Plate with a round ring is still available for general use but we advise clients to use the oval ring version for lifting purposes. All the scenery fittings have been designed for use with traditionally built scenery in a typical indoor theatre environment. They must be fitted by a competent person in accordance with the instructions supplied. The instructions can also be downloaded from our website.

It is beyond the scope of this catalogue to cover every aspect of the safety of lifting equipment so it is important that the person specifying lifting equipment is competent to do so.

SCENERY LIFTING FITTINGS

4: SCENERY FITTINGS



The slotted holes will accept inverted shackles [with a reduced WLL]

Hanging Clamps with Slotted Holes

Used to secure flying wires or hemp lines to flying bars so that the lines cannot slide along the bar. They can also be used inverted as a fixing point on flying bars for small pulleys etc. Our hanging clamps have all the sharp corners

removed so they are less likely to catch on cloths and gauzes and the smart black appearance makes front of house rigs less unsightly. When touring, lines can be quickly refixed in the same place without

needing unsightly tape marks. If flying heavy loads always use the hanging clamp with a certified shackle. The SWL may be affected by the rating of

the shackle. The standard Hanging Clamp fits bars from 48 to 51 mm OD. The large version fits 60.3 mm OD gas barrel. The finish is black powder coated. The top hole is slotted so shackles can be used inverted but with a reduced WLL. The slot for the shackle is 13.5 mm wide and 30.5 mm long. They are designed to be used with 1.5 t Crosby or Green Pin Bow Shackles [pages 160 and 161]. Size: 180 x 40 x 65 mm. Fixings supplied: 2 off M10 x 40 HT bolts with Nyloks and washers [max torque 3.5 Nm]. For diverting flying wires along the bar see facing page. Weights: standard 648 g, large 672 g.

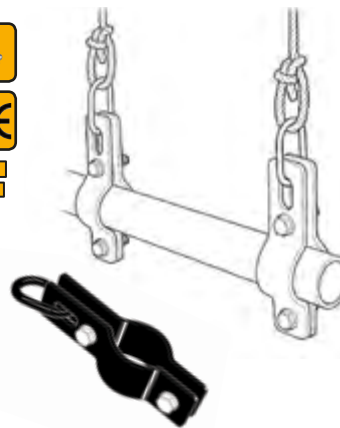
The direction of pull should be either in-line or diverted along the bar. If the bar does not rotate to the direction of the pull then the WLL would reduce to 47 kg. Supplied instructions must be adhered to including bolt tightening torques.

SAFETY

Working Load Limits

| | | |
|------------|---------------------------|--------|
| FHS002HCS | with shackle pin in slot | 550 kg |
| FHS002LHCS | with shackle pin in slot | 550 kg |
| FHS002HCS | with shackle body in slot | 50 kg |
| FHS002LHCS | with shackle body in slot | 50 kg |

| Hanging Clamps with Slotted Holes | code | price | Tradeline 50+ |
|--|-------------|-------|---------------|
| Standard with slot for shackle to suit 48-51 Ø | FHS002HCSK | £7.50 | £6.40 |
| Large with slot for shackle to suit 60.3 Ø | FHS002LHCSK | £7.50 | £6.40 |



Hanging Clamp with Oval Ring

These fittings are used to secure hemp lines directly to flying bars so that the line cannot slide along the bar. The old round ring has been replaced with an oval one in accordance with BS 7906-1:2005. Fits bars from 48 to 51 mm OD. Fixings supplied: 2 off M10 x 40 HT bolts with Nyloks and washers [max torque 3.5 Nm]. Weight: 770 g. Follow supplied instructions including tightening torques.

SAFETY

| Working Load Limit |
|--------------------|
| FHS002HCO |
| 50 kg |

| Hanging Clamp with Oval Rings | code | price | Tradeline 50+ |
|-------------------------------|------------|-------|---------------|
| With oval ring for hemp line | FHS002HCOK | £9.50 | £8.00 each |



Toggles for Hanging Clamps

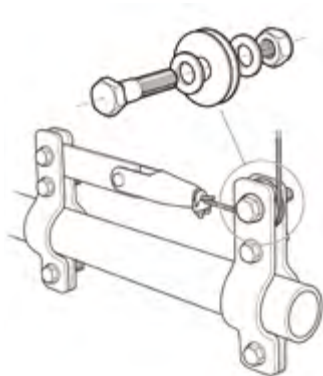
These fittings can be used with the Hanging Clamps to allow the simple fitting of a wedge socket. The twisted toggle enables the wedge socket to align with the direction of pull when raising flats from lying on the stage. Supplied complete with a M12 x 40 HT bolt, two washers and a Nylok [to secure to the hanging clamp]. 8 mm thick with 13 mm Ø holes. Note: Not suitable for 2 - 3 mm wedge sockets.

SAFETY

| Working Load Limits |
|---------------------|
| FHS002T |
| 550 kg |
| FHS002TF |
| 5500 kg |

| Toggles for Hanging Clamps | weight | code | price |
|----------------------------|--------|-----------|-------|
| Twisted [shown black] | 315 g | FHS002TK | £4.60 |
| Flat [shown in outline] | 315 g | FHS002TFK | £3.95 |

Always use a torque wrench when securing hanging clamps [page 154].



Bar Divertors To maximise flying heights, wire ropes can be diverted around these Nylon sheaves and along the flying bar. The bar can be levelled either by moving the anchor hanging-iron or by means of a rigging screw parallel to the bar. We now stock three sizes of bar divertors. They are all supplied complete with M12 x 40 mm high-tensile bolt, two Form A steel washers and a Nylok nut. The 8 mm version is only suitable for use with the Large Hanging Clamp on 60.3 mm Ø tube. The 5 and 6 mm versions are suitable for 50.8 mm Ø tube or they can be used with the supplied nylon spacers on 48.3 mm or 60.3 mm tubes. Weight: 92 g. *when used with supplied nylon spacers.

| | |
|---------------|--------------------|
| SAFETY | Working Load Limit |
| | 550 kg |

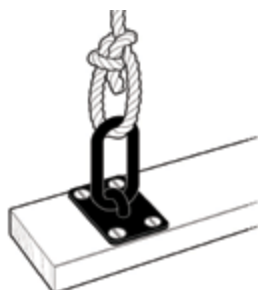
| Bar Divertors | suits bar Ø | Ø x tk | code | price |
|---------------|--------------------|----------|-----------|-------|
| 5 mm wire | 48.3, 50.8*, 60.3* | 45 x 6.4 | FHS002ESK | £8.95 |
| 6 mm wire | 48.3, 50.8*, 60.3* | 45 x 6.4 | FHS002SK | £8.95 |
| 8 mm wire | 60.3 | 45 x 8.9 | FHS002SLK | £8.95 |



Flying Irons Used for flying heavy scenery when a hanging iron cannot be deployed. The ring is welded inside the fold for extra strength. This fitting must be bolted through the flat. To achieve WLL the timber should be 25 mm thick and at least 300 mm long. Size: 370 x 30 x 22 mm. Fixings needed: 3 off 6 mm csk machine screws and tee nuts. Black powder coated. A self-colour version is available for those preferring to weld the fitting in position.

| | |
|---------------|---------------------|
| SAFETY | Working Load Limits |
| | FHS012 200 kg |
| | FHS012L 200 kg |

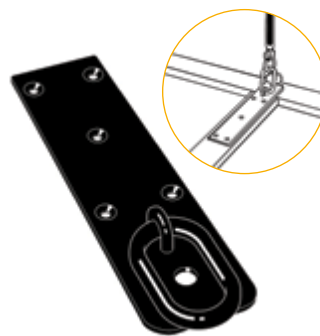
| Flying Irons | weight | code | price | 20+ |
|----------------------|--------|----------|-------|-------|
| Unlipped | 510 g | FHS012 | £9.95 | £8.75 |
| Lipped | 510 g | FHS012L | £9.95 | £8.75 |
| Unlipped self colour | 510 g | FHS012SC | £9.00 | £8.00 |



Ring Plate with Oval Ring This ring plate is fitted with a stronger oval ring [stronger than the round type] in accordance with BS 7906-1:2005. A useful multipurpose fitting suitable for flying lightweight items. Can also be used as a

grummet when flying with hems attached directly to hanging irons [page 129]. Ring plates are often fixed to the top rail of large masking flats to enable a temporary rope from the fly floor to be attached to the top of the flat to assist walking the flats up. Designed to fit nominal 3" timber as shown. Black powder coated. Size: 68 x 45 x 75 mm depth from flat [with ring at right angles as shown]. Fixings needed: 4 off M5 csk machine screws and T-Nuts. See standard Ring Plates [page 130].

| Oval Ring Plate | weight | code | price | 50+ |
|-----------------|--------|----------|-------|-------|
| | 138 g | FHS017HD | £5.80 | £4.90 |

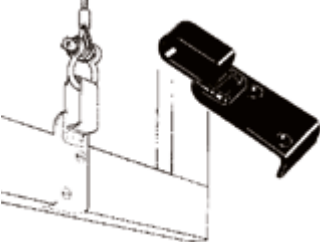


Ceiling Plate [with Oval Ring] Used to join the rails to the stiles on roll-up ceiling flats. The fitting should be machine screwed to the rail so that the 11 mm drilled hole falls on the centre line of the stile [as shown in the detail]. A boss plate should be routed in flush under the hole so the flat can be quickly assembled using M10 thumbscrews [page

| | |
|---------------|--------------------|
| SAFETY | Working Load Limit |
| | FHS0090 50 kg |

238]. By using this method the cloth can be rolled around the stiles which will have no protruding obstructions to cause damage. Flats can be constructed in this manner far larger than Paul Mathew's biggest trailer. These fittings are fitted with oval rings in accordance with BS 7906-1:2005. Also available without rings. Black powder coated. Size: 230 x 60 x 75 mm [with oval ring at right angles]. Fixings needed: 5 off 5 mm csk machine screws and T-Nuts.

| Ceiling Plates | weight | code | price | Tradeline 10+ |
|----------------|--------|---------|-------|---------------|
| With oval ring | 380 g | FHS0090 | £8.67 | £7.80 |
| Without ring | 321 g | FHS009 | £3.60 | £2.75 |

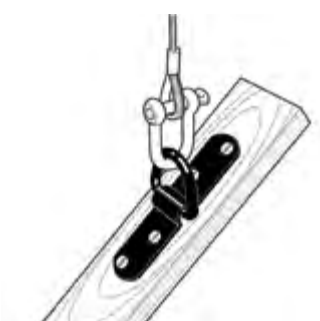


Hanging Irons This traditional fitting is used to secure lines to the bottom rail of flats. The rounded internal surface of the ring allows rope to be tied directly to the fitting, or wires can be secured with a 1.5 t Crosby bow shackle as shown [page 160]. This fitting must be bolted to the flat. The holes are designed to align with 75

| | |
|---------------|---------------------|
| SAFETY | Working Load Limits |
| | FHS013 100 kg |
| | FHS013R 100 kg |

x 25 mm nominal timber. It has a lip to hook under the rail and the eyes can face in or out. The finish is black powder coated. Size: 140 x 50 x 35 mm. Fixings needed: 2 off 5 mm csk machine screws and T-Nuts.

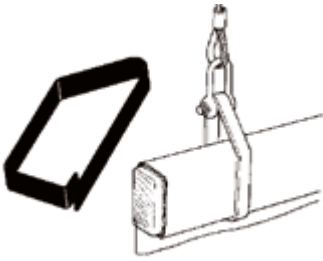
| Hanging Irons | weight | code | price | Tradeline 50+ |
|--------------------|--------|---------|-------|---------------|
| Eye out [standard] | 384 g | FHS013 | £6.95 | £6.25 |
| Eye in | 407 g | FHS013R | £6.95 | £6.25 |



D-Ring and Keeper For flying lightweight scenery when the direction of pull can be variable. Can also be used as heavy-duty grummetts. The D Ring will only comply to the WLL when used with our keeper. For this reason certification will not be supplied for the D Ring unless purchased with the Keeper. Size: 120 x 28 mm. Fixings needed: 4 off 5 mm csk machine screws.

| | |
|---------------|---------------------|
| SAFETY | Working Load Limits |
| | FHS092DRKK 75 kg |
| | FHS092K 75 kg |

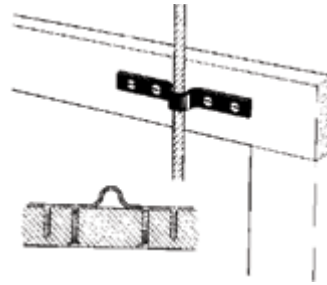
| D-Ring and Keeper | weight | code | price | Tradeline 50+ |
|-------------------|--------|----------|-------|---------------|
| D-Ring and Keeper | 109 g | FHS092K | £5.95 | £5.35 |
| Keeper | 80 g | FHS092 | £3.38 | £2.95 |
| D-Ring | 29 g | FHS092DR | £2.99 | £2.69 |



Top Batten Clip This clever fitting allows cloths to be rolled-up and shortened without resorting to the bad habit of cutting slots through the canvas for the flying wires [Argh!]. An absolute must for touring companies and can be of help to painters needing to reduce the cloth size to fit paint frames. Black powder coat finish. Use one clip for every 2 m of batten. Size: 170 x 25 x 78 mm.

| | | |
|---------------|---------------------|-------|
| SAFETY | Working Load Limits | |
| | FHS001 | 25 kg |

| | | | | |
|-----------------|--------|--------|-------|--------------|
| Top Batten Clip | weight | code | price | Tradeline |
| | 426 g | FHS001 | £3.85 | 20+ £3.47 |

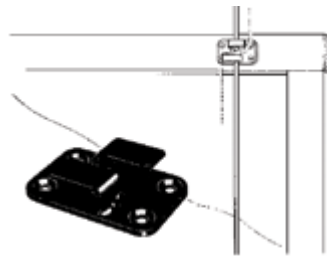


Grummet A conventional grummet for securing flying wires to the top of flats. This cheap strong fitting should always be fixed with two machine screws and two wood screws. The grummet can be subjected to significant loads during the initial raising of the flats. Once raised, virtually all the strain will be transferred to the bottom rail. The finish is black powder coated. Size: 95 x 16 x 15 mm. Fixings needed: 2 off No.8 or No.10 [4 or 5 mm] csk wood screws, 2 off 5 mm csk machine screws and tee nuts. As usual, during our testing we find the wood breaks well before the grummet is affected.

| | | |
|---------------|---------------------|-------|
| SAFETY | Working Load Limits | |
| | FHS010 | 50 kg |

95 x 16 x 15 mm. Fixings needed: 2 off No.8 or No.10 [4 or 5 mm] csk wood screws, 2 off 5 mm csk machine screws and tee nuts. As usual, during our testing we find the wood breaks well before the grummet is affected.

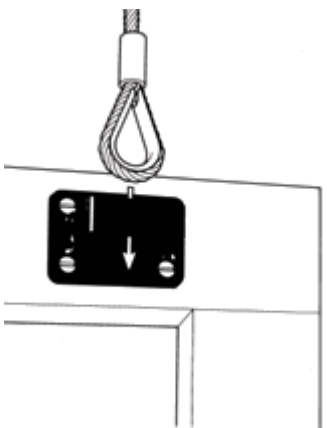
| | | | | |
|---------|--------|--------|-------|-------|
| Grummet | weight | code | price | 100+ |
| | 36 g | FHS010 | £1.35 | £1.20 |



Open Grummet This fitting was designed by us to overcome the problem of flying wires becoming trapped behind grummets on touring sets. The wire is simply twisted at right angles and pulled free. The fitting uses our standard plate size [68 x 45 mm] and should be used in the intermediate positions on flown pieces with the stronger Two Part or Opera House Grummets being used at the head of the flat. The finish is black powder coated. Fixings needed: 4 off 5 mm csk machine screws and T-Nuts.

45 mm] and should be used in the intermediate positions on flown pieces with the stronger Two Part or Opera House Grummets being used at the head of the flat. The finish is black powder coated. Fixings needed: 4 off 5 mm csk machine screws and T-Nuts.

| | | | | |
|--------------|--------|--------|-------|---------------|
| Open Grummet | weight | code | price | Tradeline |
| | 106 g | FHS011 | £2.25 | 100+ £1.60 |



Opera House Grummet Flints makes these fittings for the Royal Opera House. They allow the ferrules on made-up wire ropes to pass through the 17 x 45 mm slot. They are quicker to use than the Two-part Grummet and considerably stronger than Open Grummets. Black powder coated finish. Fixings needed: 4 off 5 mm csk machine screws and T-Nuts.

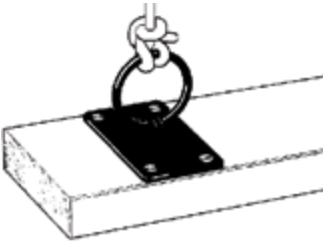
| | | |
|---------------|---------------------|--------|
| SAFETY | Working Load Limits | |
| | FHS010MP | 100 kg |

| | | | | |
|---------------------|--------|----------|-------|---------------|
| Opera House Grummet | weight | code | price | Tradeline |
| | 100 g | FHS010MP | £2.25 | 100+ £1.70 |

See also the D-Ring and Keeper on page 129.

Ever thought of stocking 4.5 mm diameter Spax Screws [page 236]? They work well in countersinks designed for 4 mm or 5 mm.

RING PLATES - NOT FOR LIFTING



Ring Plate A very popular multipurpose fitting suitable for a wide variety of uses. For flying lightweight items We also have available a ring plate with a stronger oval ring in accordance with BS 7906-1:2005 [page 129]

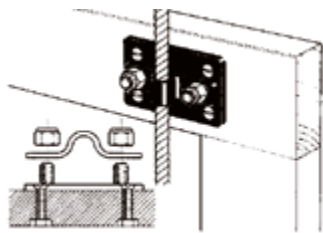
that is suitable for Lifting purposes. Ring plates are often fixed to the top rail of masking flats to enable a temporary rope from the fly floor to be attached to the top of the flat to assist walking the flats up. Designed to fit nominal 3" timber as shown. Black powder coated. Size: 68 x 45 x 60 mm depth from flat [with ring at right angles]. Fixings needed: 4 off M5 csk machine screws and T-Nuts.

| | | | | |
|------------|--------|--------|-------|-------|
| Ring Plate | weight | code | price | 100+ |
| | 102 g | FHS017 | £2.25 | £1.95 |

GRUMMETS

Grummets

Grummets are only under significant load while flats are being initially raised into position. The Open Grummet is not designed to be used on the top rail of flats but purely as a wire guide on the intermediate shoe rails, therefore it should never be subjected to high loads. Grummets should not be used for lifting. WLL's given are for guidance purposes only.



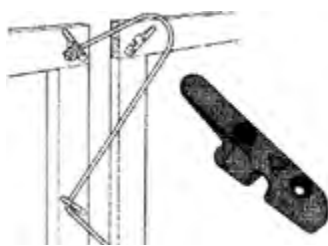
Two-part Grummet Designed by Flints with safety in mind. They are design-checked and batch-tested. The loose part is secured with two M8 Nyloks [supplied] to our standard backplate. Black powder coated. Design right applies. Size: 68 x 45 x 20 mm. Fixings needed: 4 off 5 mm csk machine screws and T-Nuts.

| | | |
|---------------|---------------------|--------|
| SAFETY | Working Load Limits | |
| | FHS041 | 100 kg |

| | | | | |
|------------------|--------|--------|-------|--------------|
| Two-Part Grummet | weight | code | price | Tradeline |
| | 110 g | FHS041 | £2.60 | 50+ £2.20 |

THROW LINE AND CLEATING GEAR

F



Clummet® This popular cast-alloy fitting was designed by Flints to replace the old throw line cleat. Its smooth shape makes throwing lines easier and the bridge allows the sash to be tied off without requiring a separate

grummet. By using a Clummet® on both flats the line can be quickly swapped for left-handed throwers. They should be fixed at a 30° - 40° angle near the top of the flat. On tall flats, extra Clummetts® should be positioned at equal intervals along the stile to draw the middles together. Traditionally, No.6 jute sash has been used for throwlines but 8 mm matt black polyester is now a more popular and stronger choice. These cords can be found on pages 179 and 181. Size: 85 x 12 x 22 mm. Fixings needed: 2 off No.8 csk wood screws. Weight: 68 g.



Tidy up your ropes!

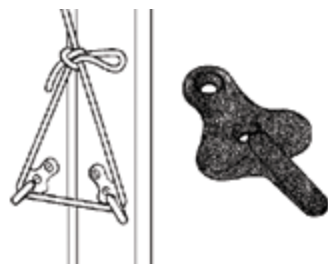
Clummetts® can also be used to tidy up ropes and extension leads by using the following method: Trap a loop of cord under the bridge, draw it through the coil of rope to be hung up and then hook the loop over the cleat. We now also stock ready-made 450 mm EWL loops in 8 mm braided cord.

| Clummet | weight | code | price | Tradeline 100+ |
|---------|--------|------------|-------|----------------|
| Clummet | 68 g | FHS006 | £2.92 | £2.39 |
| Loop | | FHS006LOOP | £2.60 | |



Halls No.6 Cleats are no longer made.

F



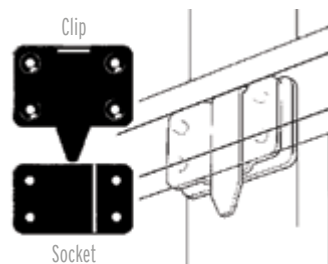
Tie Off Cleat Used for securing the sash when line and cleating flats. The cleat grips the sash against the timber. They should be fixed 700 mm from the ground so they are both comfortable to tie off and also so the sash does not become a trip hazard

by trailing on the ground when the flats are run. Made from cast iron and painted black. Size: 75 x 30 x 9 mm from flat. Fixings needed: 2 off No.8 [4 mm] csk wood screws.

| Tie Off Cleat | weight | code | price | Tradeline 100+ |
|---------------|--------|--------|-------|----------------|
| | 52 g | FHS007 | £2.95 | £2.65 |

PELMET CLIPS AND SOCKETS

F

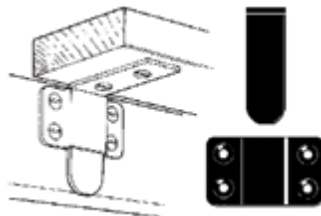


Pelmet Clip and Socket A useful pair of fittings for stiffening battens, hanging heavy picture frames, securing panels as well as fitting pelmets. The backing plate is our standard size so, if required, it can be routed in flush using a boss

plate jig. The finish is black powder coated. Clip size: 68 x 65 x 13 mm. Socket: 68 x 40 x 10 mm. Fixings needed: 4 off No.8 or No.10 [4, 4.5 or 5 mm] csk wood screws for each part.

| Pelmet Clip and Socket | weight | code | price | Tradeline 100+ |
|------------------------|--------|--------|-------|----------------|
| Clip | 101 g | FHS003 | £2.15 | £1.90 |
| Socket | 63 g | FHS004 | £1.95 | £1.75 |

F



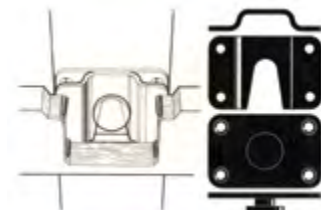
Pelmet Iron An alternative to the Pelmet Clip and better suited for fitting shelves to flats. The fit is loose enough to allow the shelf to be quickly removed without jamming. Also widely

used for fitting on-edge stiffening battens. Black powder coated. Size: 80 x 25 x 52 mm. Fixings needed: 2 off No.8 or No.10 [4, 4.5 or 5 mm] csk wood screws.

| Pelmet Iron and Socket | weight | code | price | Tradeline 100+ |
|------------------------|--------|--------|-------|----------------|
| Pelmet Iron | 69 g | FHS005 | £1.60 | £1.40 |
| Pelmet Socket | 63 g | FHS004 | £1.95 | £1.75 |



F

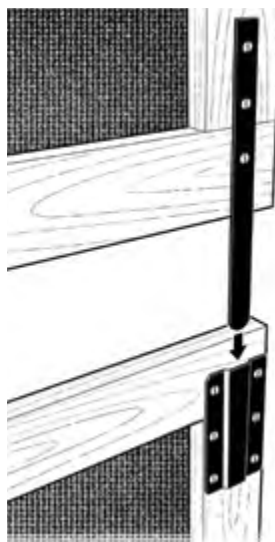


Button Pelmet Clip and Socket Made by Flints under licence to Triple E who designed this clever plate several years ago. Triple E kindly asked for their commission to be donated

straight to The Theatrical Guild. The Button Clip allows easy location into the socket at any angle and is not prone to damage during transport. This fitting is a good choice for quick scene change items because of its ease of location. Button size: 68 x 45 x 11 mm. Clip size: 68 x 45 x 13 mm. Fixings needed: 4 off No.8 or No.10 [4, 4.5 or 5 mm] csk wood screws for each part.

| Button Pelmet | weight | code | price | Tradeline 100+ |
|---------------|--------|--------|-------|----------------|
| Clip | 78 g | FHS046 | £2.95 | £2.65 |
| Socket | 62 g | FHS047 | £2.30 | £2.10 |

F



Extension Iron and Long Socket These Extension Irons are particularly useful for joining small extension flats to the main flat. By extending or reducing the height of masking flats, scenery can be made to fit a wide variety of touring venues allowing tall flats to be reduced in height to fit under fly floors or even into short vans. The socket is gently dovetailed to ensure an easy location yet a snug fit. Sizes: Iron length x width 300 x 25 mm, Socket length x width 153 x 66 mm. Fixings needed: Iron - 3 off No.10 [5 mm] csk wood screws, Long Socket - 6 off No.8 [4 mm] csk wood screws.

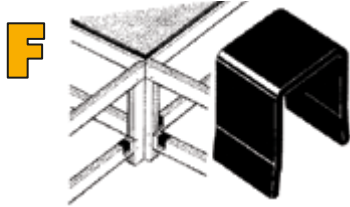
| Extension Iron and Long Socket | weight | code | price |
|--------------------------------|--------|--------|-------|
| Extension Iron | 340 g | FHS048 | £3.98 |
| Long Socket | 99 g | FHS049 | £3.50 |

NEW TYPE



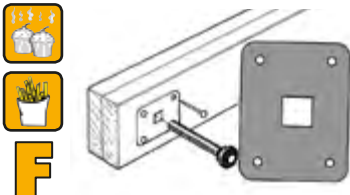
Flush Mounts These small flush mounts are ideal for light panels. They are sold as a pair [i.e. 2 pieces]. Use screws no bigger than No.4 [3 mm] or the heads will not clear. Projection: 3.5mm. Zinc-plated.. See also Dual Lock on page 254.

| Flush Mount | dims | weight | code | set | 50+ sets |
|-------------|------------|--------|---------|-------|----------|
| Regular | 44 x 38 mm | 34 g | TOLMFM | £0.99 | £0.89 |
| Small | 40 x 15 mm | 15 g | TOLMFMS | £0.75 | £0.70 |



Rostra Dogs These clips can be used to speed up set changes by avoiding the need to bolt up folding gate rostra. They clip neatly around 3" x 1" [75 x 25 mm] or 3" x 1/4" [75 x 32 mm] PAR timber. They can also be used to secure rostra with fixed tops when the lack of access to the underside prevents bolts from being used. The finish is black powder coated. Sizes: 30 x 45 mm with a 41 mm gap for 1" [25 mm] nominal timber, 30 x 45 mm with a 57 mm gap for 1/4" [32 mm] nominal timber.

| Rostra Dogs | weight | code | price | 100+ |
|-------------|--------|--------|-------|-------|
| 41 mm | 93 g | FHS030 | £1.70 | £1.30 |
| 57 mm | 105 g | FHS031 | £1.70 | £1.30 |



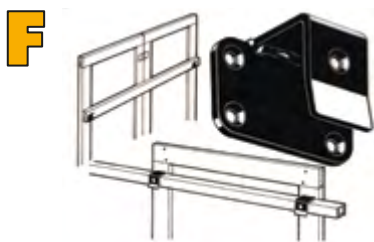
Bolt Plate A slim steel plate which can be nailed into place to stop the square heads of M10 coach bolts wearing into the timber [page 241]. Now with rounded corners. Supplied self-colour. Size: 50 x 38 x 22 gauge.

Fixings needed: 4 off 2 mm wire or annular nails. Weight: 12 g.

| Bolt Plate | weight | code | price | 100+ | 1000+ |
|------------|--------|--------|-------|-------|-------|
| | 12 g | FHS033 | £0.20 | £0.11 | £0.09 |

See also Spikey Washer [page 240].

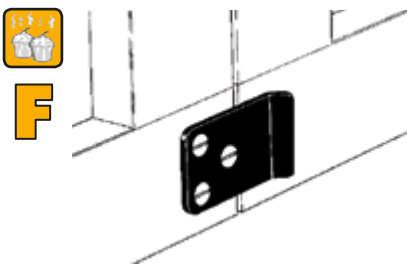
FLATTAGE CLIPS AND FLUSHING PLATES



Flattage Clips Simple but endlessly useful. Our standard backplate is supplied with three sizes of protruding hooks. They are ideal for securing timber flats to steel trucks and can be used with the hook-up to

provide a location for stiffening battens. A countersunk hole in the hook allows the battens to be fixed in place on flown pieces. Black powder coated finish. Fixings needed: 4 off 5 mm csk machine screws. Base plate size: 68 x 45 mm.

| Flattage Clips | weight | gap size | code | price | Tradeline 50+ |
|----------------|--------|----------|--------|-------|---------------|
| | 110 g | 27 mm | FHS027 | £2.75 | £2.45 |
| | 126 g | 30 mm | FHS028 | £2.75 | £2.45 |
| | 152 g | 42 mm | FHS029 | £2.75 | £2.45 |



Jointing Plates A plain, drilled plate designed to be used as a flushing plate for line and cleated flats but often used as a door stop. The end of the plate is available either slightly folded, to help location, or flat. Black powder coated. Size: 68 x 45 x 6 mm.

Fixings needed: 3 off No.8 or No.10 [4, 4.5 or 5 mm] csk woodscrews.

| Jointing Plates | weight | code | price | 100+ |
|-----------------|--------|---------|-------|-------|
| Folded | 65 g | FHS008 | £1.50 | £1.20 |
| Flat | 65 g | FHS008F | £1.50 | £1.20 |

PANEL HANGER



Panel Hanger These useful fittings can be used to quickly hang panels or flattage from scaffolding or trussing without the need for cables. For static displays, the panel simply hooks over the bar. There is an M10 threaded insert provided to enable an optional wing

bolt to be tightened against the bar to prevent the panel from being accidentally dislodged. Very useful for touring display panels, exhibition stands and fast scenery changes. Black powder coated. Size: 300 x 50 x 65 mm deep [to fit tube up to 52 mm diameter]. Fixings needed: 4 off 5 mm csk machine screws and tee nuts.

| Panel Hanger | weight | code | price | 100+ |
|--------------|--------|---------|-------|-------|
| Panel Hanger | 400 g | FHS050 | £3.90 | - |
| Wing Bolt | 23 g | FIX3053 | £0.28 | £0.19 |

BOSS, STUD AND PEG PLATES



Boss Plates This fitting has hundreds of uses but was primarily designed as a flush stage fixing for stage braces. It uses our standard backing plate and has a threaded insert to take M10 bolts or thumb screws. We also make

a Reverse Countersunk Boss Plate [FHS014FM] which is designed to fix to the underside of rostra tops so that the strain pulls against the top. Black powder coated. Size: 68 x 45 x 3 mm [10 mm to base of boss]. Fixings needed: 4 off No.8 or No.10 [4, 4.5 or 5 mm] csk screws.

| Boss Plates | weight | code | price | 100+ |
|---------------------|--------|----------|-------|-------|
| | 74 g | FHS014 | £2.00 | £1.75 |
| Reverse countersunk | 74 g | FHS014FM | £2.00 | £1.75 |

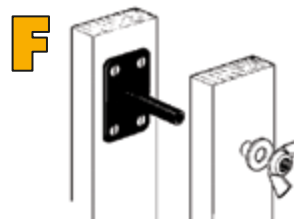
Also available as self-colour blank plates drilled and countersunk in each corner
FHS099 £1.30



Round Boss Plate This product was suggested to us by Alan Cohen and we agreed that it would be very useful to speed up setting boss plates on stage. A 51 mm hole saw will neatly cut through the usual hardboard stage cladding. The hardboard can be discarded and the plate set in the hole. The finish is black powder coated. Size: 50 mm diameter x 3 mm thick [10 mm to base of boss]. Fixings needed: Three No.8 or No.10 [4, 4.5 or 5 mm] csk wood screws. Weight: 52 g.

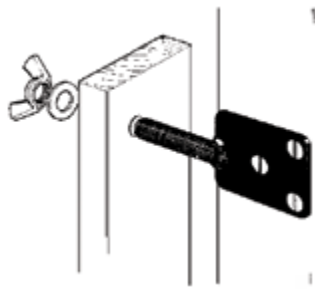
| Round Boss Plates | weight | code | price | 100+ |
|-------------------|--------|----------|--------|-------|
| Round Boss Plate | 52 g | FHS014AC | £2.00 | £1.75 |
| 51 mm Hole Saw | | TOLHS51 | £12.19 | - |
| Hole Saw Arbor | | TOL1968 | £17.34 | - |

See also page 271.



Stud Plate Simply a M10 threaded stud fixed to our standard plate. The stud plate solves a multitude of problems especially when access to the rear of flats is awkward. Essential on any fit-up. Black powder coated. Size: 68 x 45 x 50 mm depth from flat. Fixings needed: 4 off No.8 or No.10 [4, 4.5 or 5 mm] csk wood screws.

| Stud Plate | weight | code | price | 100+ |
|------------|--------|--------|-------|-------|
| | 84 g | FHS015 | £2.00 | £1.80 |

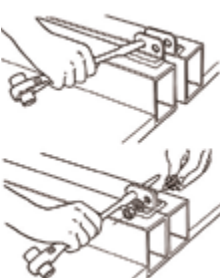
F

Peg Plate Similar to the stud plate but with the stud welded to the side of the fitting. If the boss plate and the stud plate will not solve your fixing problem then this one probably will. The finish is black powder coated. Stud length: 50 mm. Size: 115 x 45

x 10 mm depth from flat. Fixings needed: 3 off No.8 or No.10 [4, 4.5 or 5 mm] csk wood screws.

| Peg Plate | weight | code | price | Tradeline 100+ |
|-----------|--------|--------|-------|----------------|
| | 91 g | FHS016 | £1.95 | £1.75 |

FITTINGS FOR STEELWORK

**F**

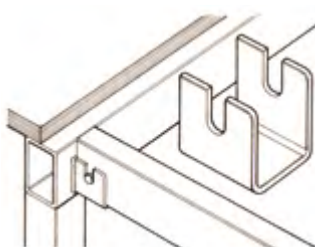
Unique to Flints!

Podgalug® Designed and patented for use with the ratchet podger. Podgalugs® are drilled with two holes, one for the podger to align the lug and the other for the bolt. Using these twinhole lugs will not only dramatically speed

up fit-up times but will free up your engineers from lug making when they could be more usefully deployed on other tasks. Supplied self-colour ready to weld. The holes are 12 mm diameter designed for use with 10 mm bolts. They are positioned 22 mm out from the inner flange to provide good clearance for ratchet podgers. They conform to the Royal Opera House Podger Clearance specifications [honest – they exist!]. "Podgalug" is a registered Trade Mark of Flints. Podgalugs are fully covered by Patent No. GB2331343 and are only available from Flint Hire and Supply Ltd. 2 sizes.

| Podgalugs | wt | size [mm] | length | code | price 10+ | 100+ | Tradeline 1,000+ |
|-----------|-------|-----------|--------|--------|-----------|-------|------------------|
| | 153 g | 40x40x5 | 60 mm | FHS043 | £0.88 | £0.79 | £0.76 |
| | 126 g | 40x25x4 | 60 mm | FHS044 | £0.80 | £0.72 | £0.69 |

For our comprehensive range of podgers why not visit Podgertropolis [page 296]. Flints also sells welding equipment [page 267].

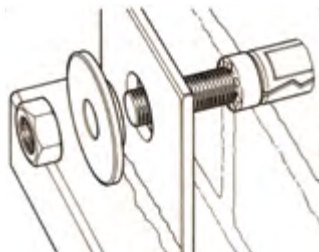
F

Drop-in Clip Folded and stamped from one piece of steel, the drop-in clip is supplied unpainted ready for welding in place. The slot is designed to accept 50 x 25 steel tube with a 10 mm diameter rod being fitted 20 mm in from the end. It will be

found that the rod can easily be welded on the inside of the tube. The drop-in bar floor is a strong construction which can be set and struck at great speed. Now with rounded off corners on the receiving end. Size: 40 x 35 x 42 mm. Fixings needed: weld in place.

| Drop-In Clip | weight | code | price | Tradeline 100+ |
|--------------|--------|--------|-------|----------------|
| | 93 g | FHS032 | £1.00 | £0.80 |

For Key Clamp fittings to make masking goal posts etc see page 212. For Autopoles see page 331.

F

Top Hat A simple device to make fixing steelwork to walls much easier. To use, weld one of our Top Hat Lugs – which are pre drilled with a 25 mm diameter hole – to your steel frame. The large diameter hole allows you to

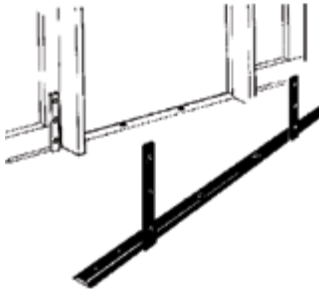
drill straight into the wall with a masonry bit and insert the expanding fixing without having to move the heavy steelwork away. Place a top hat over the protruding stud and it will locate in the large hole. Tighten the nut onto the top hat and your steelwork is held in place.

Overall diameter: 38 mm
Flange diameter: 24 mm
Lug size: 50 x 50 x 6 mm with a centred 25 mm Ø hole

Hole diameter: 13 mm
Overall thickness: 7 mm

| Top Hats and lugs | weight | code | price | Tradeline 100+ |
|-------------------|--------|---------|-------|----------------|
| Top Hat | 36 g | FHS039 | £1.95 | £1.65 |
| Top Hat Lug | 92 g | FHS039L | £1.25 | £1.00 |

SILL AND REVEAL IRONS

F

Sill Iron Used to provide strength to door flats. They are made-up to suit your requirements, from a flat steel bar with a rounded top section. They should be ordered by stating the distance between the lugs. On a 3 x 1" timber flat with a reveal around the door this

is generally the door opening plus 45 mm. The sill iron is drilled and countersunk in two places to screw downwards into the floor for standing sets and is also drilled to screw upwards into the bottom rail to give the flat stiffness. The iron will protrude beyond the lugs by 120 mm unless stated otherwise. Supplied painted black.

Size: Stated width between lugs plus 290 x 200 mm height.

Fixings needed: No.10 [5 mm] csk screws or M5 csk machine screws.

| Sill Iron | code | price |
|------------------|--------|--------|
| Up to 1 m | FHS034 | £60.00 |
| Per extra 300 mm | | £20.00 |

F

Reveal Iron Like the Sill Iron the reveal iron is used to provide strength to a doorway but this time the lugs are at right angles to the sill and are bolted through the door reveal. They are made to order and the measurement we require is the distance across the outside of the

reveal. On wide reveals of heavy flats we recommend the use of two per doorway. Supplied painted black. Size: Stated width between lugs plus 8 x 200 mm height. Fixings needed: No.10 [5 mm] csk screws or M5 csk machine screws.

| Reveal Iron | code | price |
|------------------|--------|--------|
| Up to 1 m | FHS035 | £60.00 |
| Per extra 300 mm | | £20.00 |