

Steel Framed Seats

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We offer a wide range of high specification steel framed seats and benches which represent excellent value for money.

Similar products are available with recycled plastic slats (see pages 72 - 77). Most of these products are available in two standard lengths, 1800 and 2400mm, and can be supplied with arms. Our 2400mm seats have an additional central frame.

Most of these designs are available with either Acrylic Coated frames, or Street-Tough finished frames (see page 87).





Arms are often specified on seats for commemorative purposes or if high volume use by older people is anticipated, such as in sheltered housing complexes.

Most of the seats in this range use stainless steel pin-in-socket fastenings to secure the boards to the frames. These fastenings screw into stainless steel nuts which are welded onto the frames.

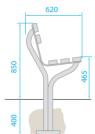






Carlisle Seat

Sharing the same tubular seat frames as our Stirling Seat illustrated on page 36, this seat is both elegant and practical. Available with extended legs to concrete in as standard. Stainless steel frames can be specified at additional cost.



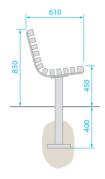
- Boards 45 x 95mm finished
- Boards available in iroko or seasoned oak
- See pages 82 -83 for timber specifications and finishes
- Frames 50 x 3mm circular hollow section and 50 x 12mm flat
- · Length 1800mm, weight approx. 48kg.
- Length 2400mm, weight approx. 68kg.
- Pedestal base option can be bolted down with K1 rawl bolts, K4 or K12 extended rawl bolts
- Frames in either Acrylic Coating or Street-Tough finish in black as standard (see page 87)
- Supplied with extended legs (for concreting in), as standard. Also available at additional cost, with pedestal base legs (for bolting down)
- Supplied as separate boards and frames, requiring assembly
- For installation recommendations see page 53

· Boards available in iroko or seasoned oak

- Middle boards 45 x 70mm finished, front and top boards 70 x 70mm finished
- See pages 82 -83 for timber specifications and finishes
- Legs 76 x 3mm circular hollow, all three cradle-frames 12 x 80mm flat
- Supplied with extended legs (for concreting in), as standard. Also available with pedestal base legs (for bolting down), or ground anchoring version
- Length 1800mm, weight approx. 81kg.
- Pedestal base option can be bolted down with K1 rawl bolts, K4 extended rawl bolts, or K12 extended rawl bolts
- Frames in either Acrylic Coating or Street-Tough finish in black as standard (see page 87)
- · Supplied with seat assembled, with legs to bolt on
- · For installation recommendations see page 53

Westbourne Seat

A comfortable heavy duty seat, with very substantial boards, particularly suitable for landscape schemes in a wide variety of environments. The boards are secured from the rear by stainless steel pin-in-socket fastenings, which go through the frames into timber inserts in the boards. These fastenings are secure and discreet.

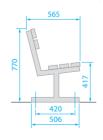




Steel Framed Seats

Chepstow Seat

One of our original designs, providing an attractive durable seat at a cost effective price. It has all the vandal resistant features of the more expensive products in this range.



- Boards 32 x 95mm finished
- · Boards available in iroko or seasoned oak
- See pages 82 -83 for timber specifications and finishes
- Frames 50 x 50 x 3mm hollow (concrete in versions have 50 x 75 x 3mm legs)
- Length 1800mm, weight approx.35kg.
- Length 2400mm, weight approx. 48kg.
- Supplied with extended legs (for concreting in), as standard.
 Also available with pedestal base legs (for bolting down)
- Pedestal base option can be bolted down with K3 rawl bolts, or K10 extended rawl bolts
- Frames in either Acrylic Coating or Street-Tough finish in black as standard (see page 87)
- Supplied as separate boards and frames, requiring assembly
- For installation recommendations see page 53



Chirk & Suffolk Benches

Both these benches are economical, and enable the sitter to face either way. They are often specified for children's recreational areas and school playgrounds. The Suffolk has 45mm thick softwood boards secured by 10mm BZP coach bolts with washers and plain nuts.

- Chirk boards 32 x 95mm finished, available in iroko or seasoned oak
- Suffolk boards 44 x 145mm finished, available in kiln dried treated softwood
- See pages 82 -83 for timber specifications and finishes
- Frames 50 x 50 x 3mm hollow, with 50 x 75 x 3mm hollow legs on concrete-in version
- Chirk length 1800mm, weight approx. 22kg. Length 2400mm, weight approx. 31kg.
- Suffolk length 1800mm, weight approx. 19kg.
- Supplied with extended legs (for concreting in), as standard. Also available with pedestal base legs (for bolting down)
- Pedestal base option can be bolted down with K3 rawl bolts, or K10 extended rawl bolts
- Frames in either Acrylic Coating or Street-Tough finish in black as standard (see page 87)
- Supplied as separate boards and frames, requiring assembly
- · For installation recommendations see opposite



All hollow section seats in this range have:

- Fully welded steel end caps, as opposed to plastic end plugs
- Stainless steel tamper resistant fastenings
- · Boards fully finished and coated
- · Standardised parts for ease of replacement
- Various ground fixing options
- Two standard lengths available, 1800mm and 2400mm
- Optional arms available









This fixing system has several important advantages:

- A special key is needed to undo these fastenings, which reduces the risk of unauthorised dismantling
- No nuts are visible at the rear of the frames, and the fastenings are flush fitting on the board surface
- Stainless steel fastenings don't rust, so look good indefinitely
- The replacement of individual boards is a straightforward task, even many years later

These seats are frequently specified for commemorative purposes for which several types of plaque are available (see page 3 - 6).

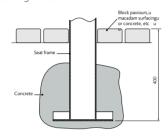
Summary of fixing options available for steel framed seats

	Pedestal Base	Extended Legs	K1	K1T	К3	КЗТ	K4	K4T	K5	K5C	K5T	K10	K1OT	K11	K11C	K11T	K12
Monmouth	~	~			V	~						~	~				
Carlisle	V	~	~	~			~	~									V
Westbourne	V	~	~	V			~	~									V
Chepstow	V	~			~	~						~	~				
Cambourne	V	~	~	~			~	~	~	~	~			~	~	V	V
Chirk	V	~			~	~						~	~				
Suffolk	~	~			~	~						~	~				

Installation Recommendations

1. Extended legs for concreting in

As standard, all steel framed seats and benches are supplied with extended legs to concrete them into the ground. This method suits grassed areas, small block paviours and areas which will have a final surface of bituminous macadam. It is a very secure method of fixing, but involves excavating the ground. The assembled seat is accurately positioned into 400mm deep holes which are filled with concrete bedding. This can be laid to the final ground level to form a concrete pad around the seat. If stopped short to allow for other ground finishes, the paviours or macadam are laid around the legs of the seat after the concrete bedding has set.



3. Extended rawl bolts and spacers (K4, K4T, K10 K10T or K12)

For the installation of pedestal base seats onto small block paviours, typically 60mm thick, we recommend either the K4, K4T, K10 or K10T M10 x 180 extended rawl bolts, or K12 M12 x 240 extended rawl bolts, with semi collapsible spacing tubes.

The spacing tubes hold the rawl bolt shell in the concrete (which must be laid beneath the paviours) whilst the bolt is being tightened. It is recommended that the paviours in the area of the seat are bedded on top of the concrete using a semi dry sand cement screed about 20mm thick. These kits are also suitable for fixing seats onto surfaces of bituminous macadam, laid on top of concrete. The bolts in these options are stainless steel.

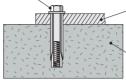
4. Galvanised ground fixing extensions (K5, K5C, K5T, K11, K11C or K11T)

These extensions have the advantage of offering a very strong and permanent installation, though they are more work than the K4 fixing kits. This means of fixing is suitable for grassed areas, small block paviours and macadam surfaces.

The extensions are bolted to the feet of the seat and then accurately positioned in the concrete bedding, using the seat as a template.

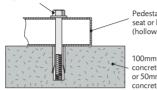
After the concrete securing the extensions has set, the seat is removed, and the final surface is laid to the tops of the extensions. The seat is then returned to the site and finally bolted down. All the bolts in these options are stainless steel. The K5 options are 225mm long, and the K11 options are 400mm long.

K1 M10 x 80 hex head bolt K1T M10 x 80 pin-in-socket cap head bolt Pedestal base of seat or bench (solid type)



K3 M10 x 110 hex head bolt

K3T M10 x 110 pin-in-socket
cap head bolt



Pedestal base of seat or bench (hollow type)

100mm

concrete base or 50mm

concrete slahs

concrete base or 50mm concrete slabs

2. Rawl bolts (K1, K1T, K3, or K3T)

Pedestal base seats can be rawl bolted to an existing surface of sound concrete, or well laid traditional size concrete or stone slabs, using these M10 rawl bolts. This method is not normally suitable for installing seats onto small block paviours. The bolts in these options are stainless steel.

- K1 and K3 have hex head bolts
- K1T and K3T have tamper resistant pin-insocket socket cap head bolts to reduce the risk of unauthorised removal





K1 Ground fixing

K3 Ground fixing



K4 M10 x 180 hex head bolt

20mm

100mm

(or more)

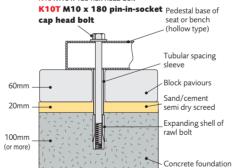
(solid type)
Tubular spacing sleeve
Block paviours
Sand/cement semi dry screed

Expanding shell of

rawl bolt

Concrete foundation

K10 M10 x 180 hex head bolt



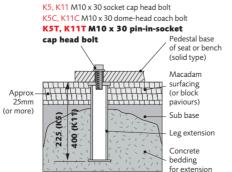




K12 Ground fixing

K10 Ground fixing

- K4, K10, K12 have hex head bolts
- K4T, K10T have tamper resistant pin-in-socket socket cap head bolts to reduce the risk of unauthorised removal



- K5 and K11 have socket cap head bolts.
- K5C and K11C have coach bolts (which are very tamper resistant, but difficult to remove if ever the seat needs to be moved).



K5/K11 Ground fixing extension

 K5T and K11T have tamper resistant pin-insocket socket cap head bolts to reduce the risk of unauthorised removal. Steel Framed Seats