

# Steel Framed Seats

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 63 - 66). Most of these products are available in two standard lengths, 1800 and 2400mm, and can be supplied with arms. Most of these designs are available with either Acrylic Coated frames, or Street-

Tough finished frames (see page 82). 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.

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



Steel Framed Seats

## Design Features



Fully welded end caps



Tamper resistant fastenings

### All of our hollow section seats in this range have:

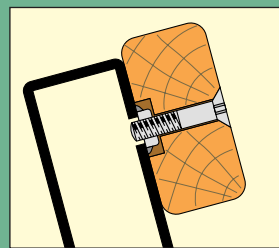
- Fully welded steel end caps, as opposed to plastic end plugs
- Stainless steel tamper resistant fastenings
- Boards fully finished and coated
- Standardised components for ease of replacement
- Various ground fixing options
- Two standard lengths available, 1800mm and 2400mm
- Optional arms available

## Board Fixing System

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.

### 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

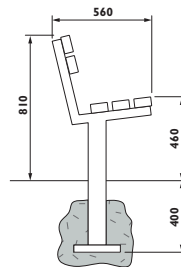


Concealed nuts

## MONMOUTH SEAT

Our most popular seat in this range combining an attractive appearance with a solid construction. It is suitable for a wide variety of locations, and is often specified for commemorative purposes.

- Boards 45 x 95mm finished
- Boards available in iroko or seasoned oak
- See pages 77 - 78 for timber specifications and finishes
- Frames 50 x 50 x 3mm hollow with 50 x 100 x 3mm central leg
- Length 1800mm, weight approx. 43kg.
- Length 2400mm, weight approx. 60kg.



- Supplied with extended legs (for concreting in), as standard. Also available with either pedestal base legs (for bolting down), or ground anchoring version
- 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 brown 08B29 as standard (see page 82)
- Supplied as separate boards and frames, requiring assembly
- For installation recommendations see page 44



1800 Monmouth Seat

## CARLISLE SEAT

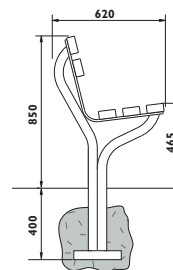


1800 Carlisle Seat

Sharing the same tubular seat frames as our Stirling seat illustrated on page 64, 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

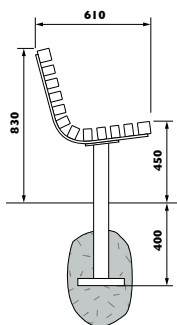
- Boards available in iroko or seasoned oak
- See pages 77 -78 for timber specifications and finishes
- Frames 50 x 3mm circular hollow section and 50 x 12mm flat



- 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 82)
- 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 44

## 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.



- Boards available in iroko or seasoned oak
- Middle boards 45 x 70mm finished, front and top boards 70 x 70mm finished
- See pages 77 -78 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 either pedestal base legs (for bolting down), or ground anchoring version



1800 Westbourne Seat

- 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 82)
- Supplied with seat assembled, with legs to bolt on
- For installation recommendations see page 44

Steel Framed Seats

## CHEPSTOW SEAT

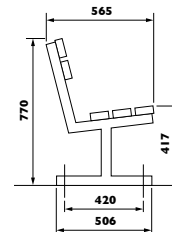


1800 Chepstow Seat

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

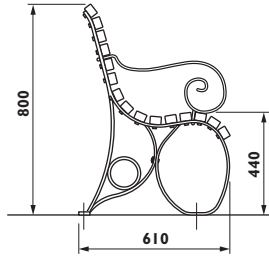
- See pages 77 - 78 for timber specifications and finishes
- Frames 50 x 50 x 3mm hollow (concrete in versions have 50 x 75 x 3mm legs)
- Length 1800mm, weight approx. 35kg.
- Length 2400mm, weight approx. 48kg.



- Supplied with extended legs (for concreting in), as standard. Also available with either pedestal base legs (for bolting down), or ground anchoring version
- 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 82)
- Supplied as separate boards and frames, requiring assembly
- For installation recommendations see page 44

## LETCHWORTH SEAT

The elegance of this traditional seat, which originates from the end of the last century, is obvious. Subtle alterations to its construction have been made to make the seat both stronger and easier to manufacture, without compromising the integrity of the original design. The metal frames are Street-Tough finish as standard. The stainless steel cap head bolts which secure the slats to the frames are countersunk.



1800 Letchworth Seat

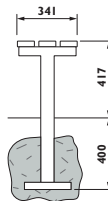
- Slats 32 x 45mm finished
- Boards available in iroko or seasoned oak
- See pages 77 - 78 for timber specifications and finishes
- Frames 50 x 6mm flat, and 30 x 10mm flat
- Frames finished in green 14C39 Street-Tough as standard. Acrylic Coating available
- K5 (225mm long), or K11 (400mm long) galvanised ground

fixing extensions are available to concrete the seat in

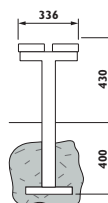
- K1 rawl bolts, K4 extended rawl bolts, or K12 extended rawl bolts are available to bolt the unit down
- Length 1800mm, weight approx. 40kg.
- Supplied fully assembled
- For installation recommendations see opposite

## CHIRK AND 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 77 - 78 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 either pedestal base legs (for bolting down), or ground anchoring version (Chirk only)
- 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



1800 Chirk Bench



1800 Suffolk Bench

black as standard (see page 82)

- Supplied as separate boards and frames, requiring assembly
- For installation recommendations see opposite

### Summary of fixing options available for steel framed seats

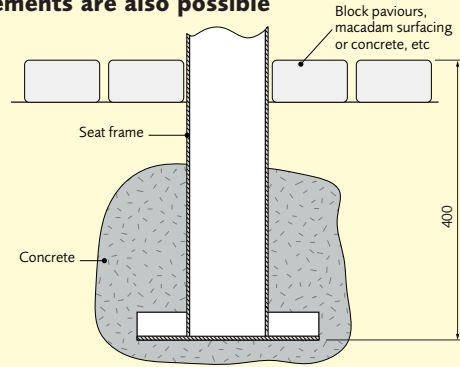
	Pedestal Base	Extended Legs	Ground Anchor	K1	K1T	K3	K3T	K4	K4T	K5	K5C	K5T	K10	K10T	K11	K11C	K11T	K12
Monmouth	•	•	•			•	•						•	•				
Carlisle	•	•		•	•			•	•									•
Westbourne	•	•	•	•	•			•	•									•
Chepstow	•	•	•			•	•						•	•				
Letchworth	•	•		•	•			•	•	•	•	•			•	•	•	•
Chirk	•	•	•			•	•						•	•				
Suffolk	•	•				•	•						•	•				

# Installation Recommendations

Wall mounting derivatives and other non-standard arrangements are also possible

## 1. Extended legs for concreting in

As standard, all steel framed seats and benches except the Letchworth 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.

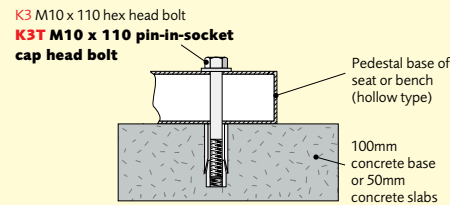
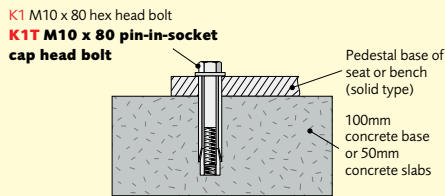


## 2. Rawl bolts (K1, K1T, K3 or K3T)

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.

- **K3** have hex head bolts
- **K3T** have tamper resistant pin-in-socket socket cap head bolts to reduce the risk of unauthorised removal

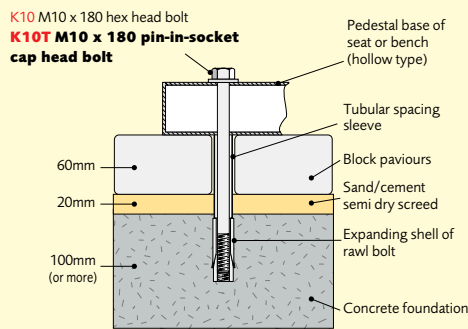
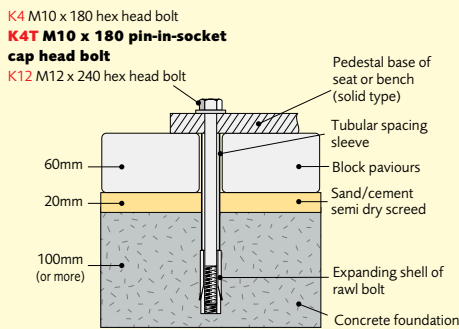


## 3. Extended rawl bolts and spacers (K4, K4T, K12, K10, or K10T)

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.

- **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

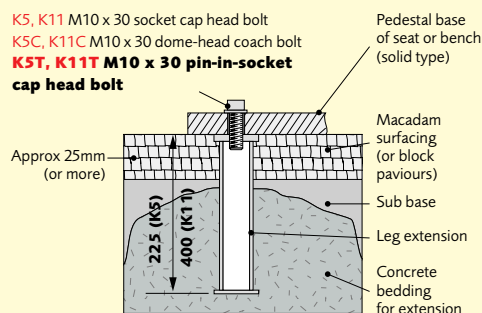


## 4. Galvanised ground fixing extensions (K5, K5C, K5T, K11, K11C or K11T)

These extensions have the advantage of offering a very strong and permanent installation, though they are more work than the K2 or 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.

- **K5T** and **K11T** 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).



## 5. Ground anchoring frames

For the installation of pedestal base frames (which are specially adapted) onto existing suitably firm grassed areas and bituminous macadam surfaces, ground anchors can be used. This will only work for macadam surfaces laid onto earth or hardcore, as opposed to concrete. This cost effective installation method is fully described and illustrated on pages 74 - 75

Steel Framed Seats