

LONGSPAN HEAVY-DUTY SHELVING

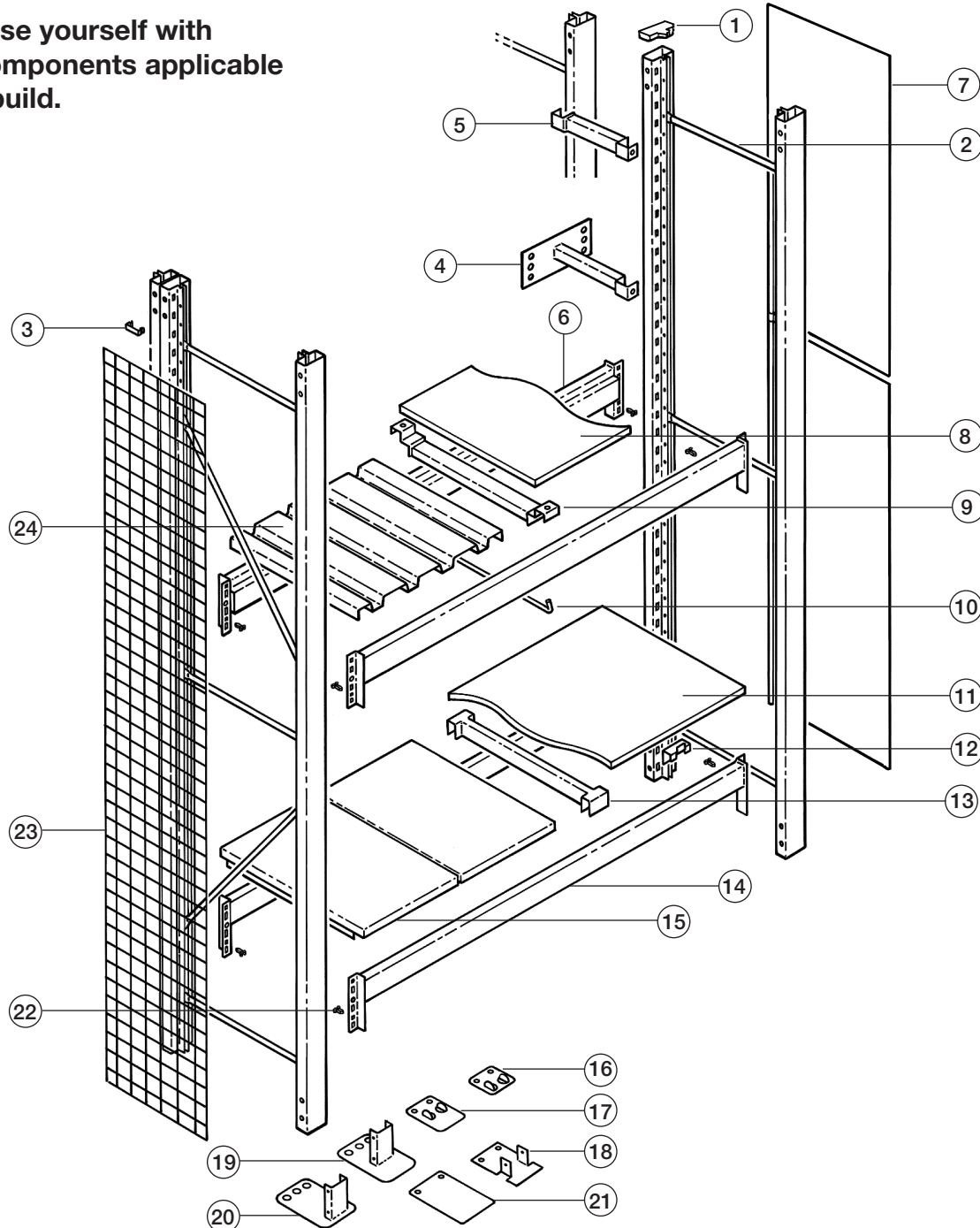
Assembly Guide



IT IS RECOMMENDED THAT THIS PRODUCT IS ASSEMBLED BY SUITABLY EXPERIENCED PROFESSIONAL STORAGE EQUIPMENT INSTALLERS ONLY.

■ At least 2 people will be required to assemble this product safely. ■ Appropriate Personal Protective Equipment (PPE) must be worn. ■ CAUTION: Take care when lifting and placing heavy components and when using tools.

Familiarise yourself with those components applicable to your build.



- | | | |
|---|---|---|
| 1. Upright Cap | 9. Shelf Cladding Support (stepped beams) | 17. Clip-on double Foot Plate |
| 2. Frame (open) | 10. Wire Beam Tie | 18. Bolt-on standard duty Foot Plate |
| 3. Frame Joining Strap | 11. Chipboard Shelf (on box beam) | 19. Bolt-on heavy-duty double Foot Plate |
| 4. Wall Tie | 12. Cladding Location Bracket (box beam) | 20. Bolt-on heavy-duty single Foot Plate |
| 5. Run Spacer | 13. Shelf Cladding Support (box beam) | 21. Levelling Shim (two types available) |
| 6. Stepped Beam (fitted in pairs) | 14. Box Beam (fitted in pairs) | 22. Beam Locking Clip (two per beam) |
| 7. Steel Frame Cladding (supplied fitted) | 15. Steel Shelf Panel | 23. Mesh Frame Cladding (supplied fitted) |
| 8. Chipboard Shelf (on stepped beam) | 16. Clip-on single Foot Plate | 24. Steel Profile Shelf Panel |

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General Rules on Installation & Assembly

Upon receipt of equipment care must be taken in unloading, on-site storage, handling and installation to ensure that components are not damaged. Take care when lifting loads.

Standard painted products are intended for installation only in a dry atmosphere and on sound, level, concrete floors. To accommodate small local variations in floor levels packing shims must be fitted beneath the relevant upright foot plates and secured in place with anchor bolts.

Frames must be set vertical and in parallel to one another whilst beams are fitted. During initial assembly the structure must be supported until sufficient pairs of beams have been fitted to make it safely self-supporting.

Beam Safety Locking Clips must be fitted at both ends of ALL beams.

Frames must be set to a vertical tolerance of 1 in 500. Where necessary shims must be fitted to achieve this degree of accuracy and securely fixed in position. Shelving runs must be accurately installed in straight lines.

Foot Plate Anchoring Requirements

Longspan must be bolted (anchored) to the floor when:

- The frame height to overall depth ratio exceeds 4:1.
- There is a risk of the shelving becoming unstable through abnormal use or handling.
- The top shelf is above reachable height.

Floor Fixing Bolt for standard duty L3GT bolted foot plates and shims is Part Number ARR6.

One fixing is required per foot plate except where more than two shims are used, when two fixings are required. 6mm x 42mm thread, 10mm hexagonal head. Requires 45mm (min.) x 8mm dia. hole/drill bit
Recommended tightening torque in 30N/mm² concrete is 6Nm.

Floor Fixing Bolt for heavy duty bolted foot plates LSZC, LDZC and shims is Part Number FD12058C.

One fixing is required per foot plate except where more than two shims are used, when two fixings are required. 10mm x 58mm thread, 14mm hexagonal head. Requires 60mm (min.) x 12mm hole/drill bit.
Recommended tightening torque in 30N/mm² concrete is 22Nm.

General Rules on Safety

The purchaser shall in all circumstances where equipment is supplied with instructions or warnings relating to its assembly and use ensure that they are followed and brought to the attention of any subsequent user of the equipment, and any person likely to be affected by its use.

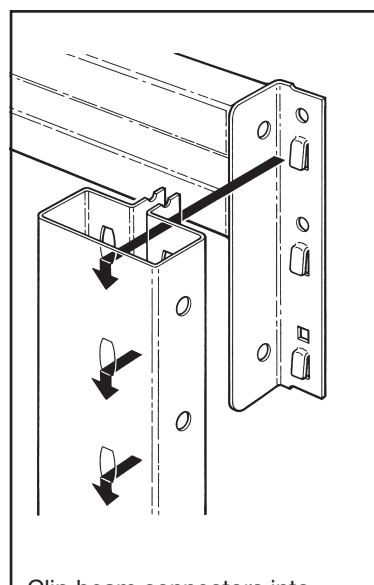
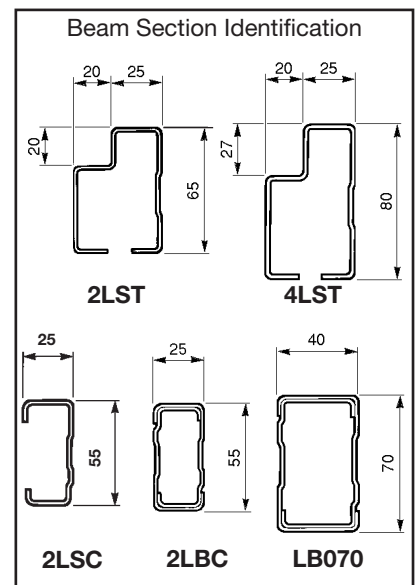
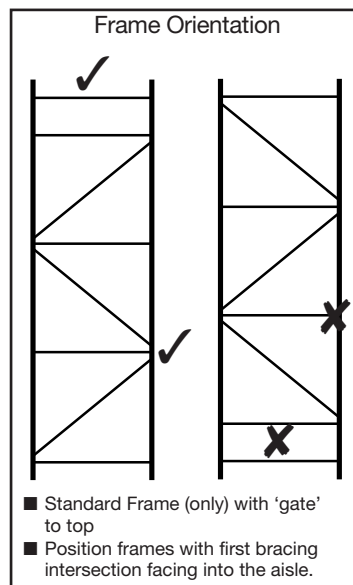
- Loading performance information must be obtained from the equipment supplier and clearly displayed.
- Where installed to a design drawing or other precise instruction, the advised configuration of the shelving MUST NOT be changed without prior written agreement.
- Load data provided will state the shelving's UNIFORMLY DISTRIBUTED SAFE WORKING LOADS. Under no circumstances should the advised loads be exceeded.

Where Longspan is to be installed, or directed to be installed, by the user or agent acting on his behalf, then it is assumed that those persons involved have the necessary skills and knowledge to complete the assembly safely.

The information provided in this leaflet is intended as a guide to small-scale, low-rise installations where work can be safely completed from, or near floor level and using a limited range of standard components.
If in doubt on any aspect of installation, contact your equipment supplier before commencing assembly.

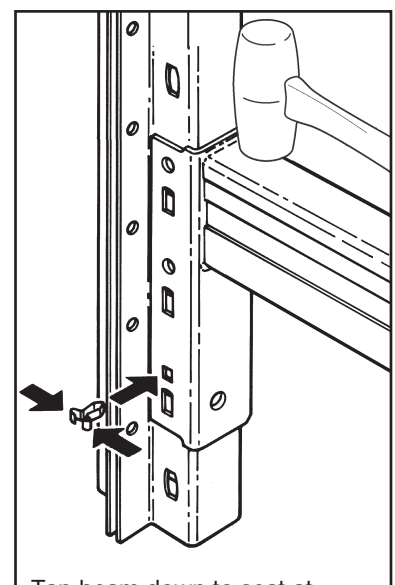
1 Bay Assembly

- Carefully unwrap components from packaging. Check delivery note and sort components against the order requirements.
- Pre-measure and mark out (if necessary) the floor area allocated for the shelving. Select a pair of frames for the first bay noting the correct vertical orientation. Fit upright end caps (where supplied). Attach clip-on or bolt-on foot plates.
- Clip into place the first pair of beams to both frames, at mid frame height, as shown below.
Bays up to 2.1m high requires at least two pairs of beams and three pairs for single bays over 2.1m.
Ensure all beam connector tongues are correctly engaged into the frame slots.
A beam safety locking clip must be fitted to both ends as soon as the beam as been fitted.



Clip beam connectors into frame uprights.

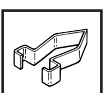
Note!
Locate both ends of the beam simultaneously to avoid straining the tongues.



Tap beam down to seat at both connected ends using a soft-faced mallet.

Safety Locking Clip

- Press clip together.
- Push into square slot (use of pliers is recommended).



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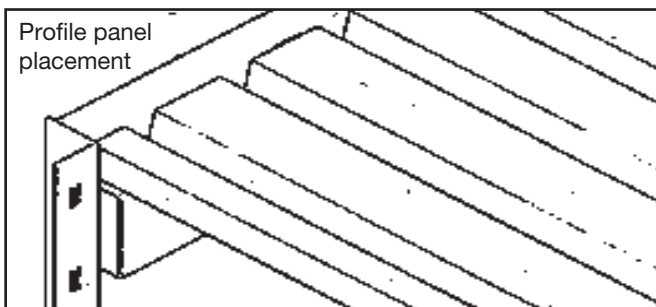
2 Foot Plate Anchoring

With the structure of frames and beams complete mark and prepare any holes required for floor fixing anchor bolts. Where required level the frames using shims. Ensure bolted foot plates are fully tightened.

Note: Where shims are used foot plates must be bolted to the floor with one or more bolts.

3 Shelving Types

- Flat Steel Shelf Panels can be fitted to 2LSC, 2LBC and LB070 Beams.
- Profiled Shelf Panels can be fitted to 2LST beams only - note correct placement for panels.

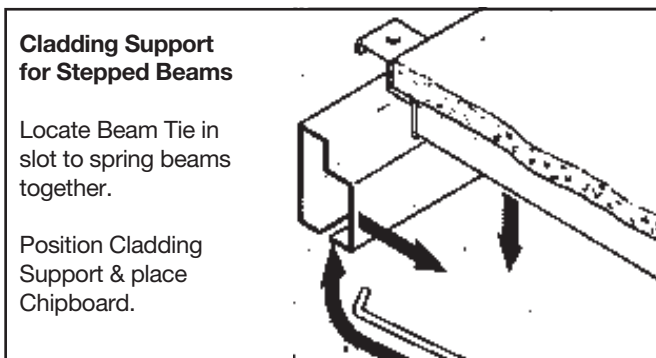


- Chipboard can be fitted to all beams types. Locate and support with cladding location brackets (one at each corner) and shelf cladding supports as required.

Note: Location brackets are not required for stepped beams.

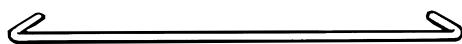
Use of Shelf Cladding Supports

Use with chipboard to reduce unsupported clear span and thereby increase load carrying capacity. Illustration shows use with 2LST & 4LST Beams.



2LSC and Stepped Beams (2LST & 4LST)

A wire beam tie must be fitted midspan on all stepped beams 1800mm to 2700mm* long and all 2LSC beams.



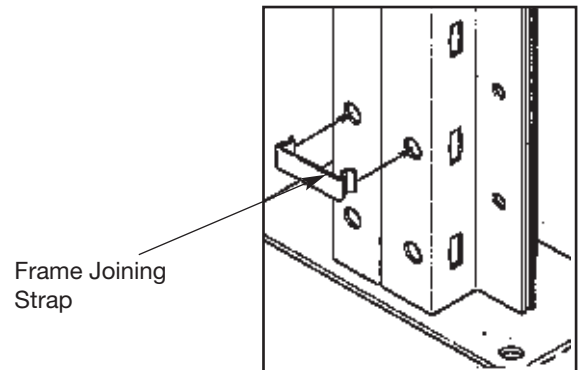
Locate the tie in the slot on the underside of the paired beams (2LST, 4LST) or in the side of the beams (2LSC) springing the beams together.

* For spans over 2700mm use 2 wire ties equally spaced.

4 Frame Joining Straps

Use of Joining Straps (where applicable)

For runs of back to back shelving frame joining straps must be fitted at the top and the base to span and clamp the adjacent uprights.



5 Run Spacers & Wall Ties

Run Spacers (where applicable)

- Spacers are fitted between each pair of back to back frames in a run.

Located using 2 beam locking clips.

Usage: Where frames are not fixed to the floor, the first spacer is positioned 150mm from the floor, with additional spacers fitted at vertical centres not exceeding 2000mm and to include a spacer located at 150mm from the top of the frame.

Where frames are fixed to the floor, the first spacer is positioned 1950mm from the floor, or 150mm from the top of the frame if that is lower. To suit the frame height, additional spacers are to be fitted at vertical centres not exceeding 2000mm.

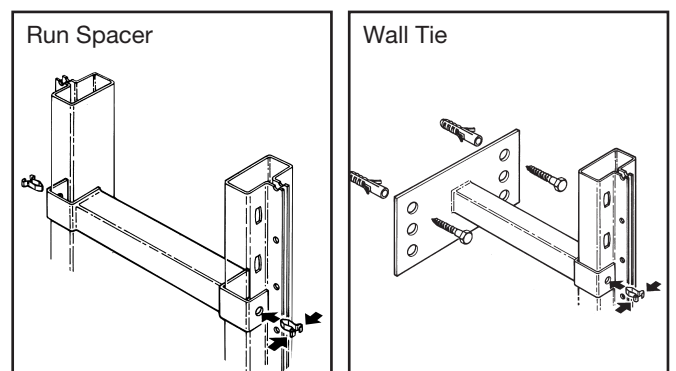
Wall Ties (where applicable)

- The wall tie is fixed at each upright using a beam locking clip and restrained to the wall using a suitable fixing (not supplied).

Usage: Where frames are not fixed to the floor, the first wall tie is positioned 150mm from the floor, with additional ties fitted at vertical centres not exceeding 2000mm and to include a tie located at 150mm from the top of the frame.

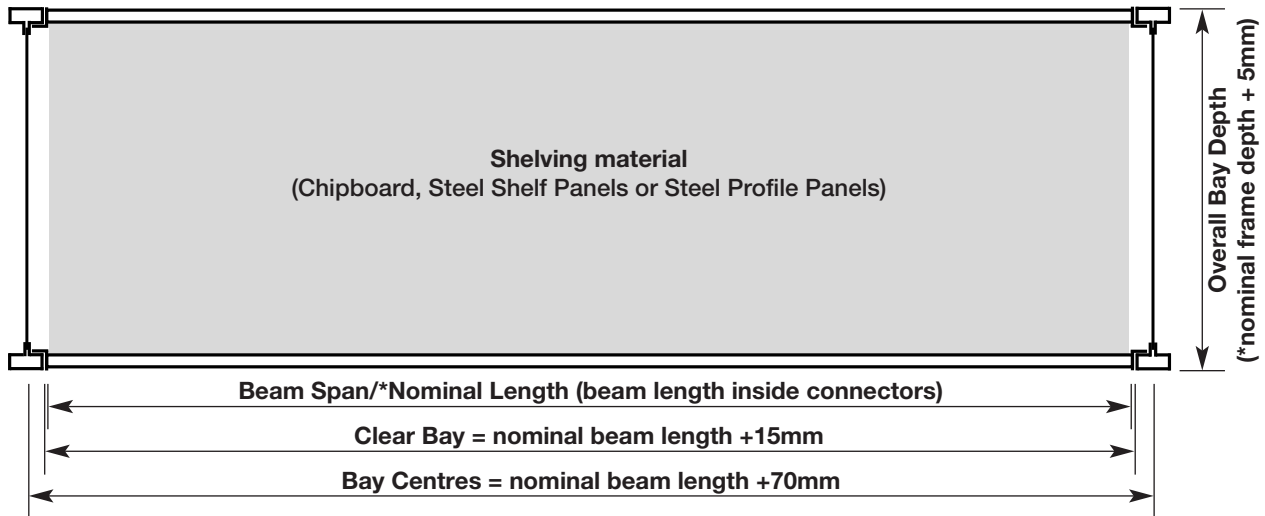
Where frames are fixed to the floor, the first wall tie is positioned 1950mm from the floor, or 150mm from the top of the frame if that is lower. To suit the frame height, additional ties are to be fitted at vertical centres not exceeding 2000mm.

Note: The supporting wall must be of a suitable construction and capable of sustaining expansion fixings and the applied loads.



Overall Plan Dimensions

Plan view of Longspan Bay



Note:

● *Nominal dimensions are those generally quoted in published price lists, literature, load tables etc.

Overall Run Length (ORL) Calculation

ORL = No. of Bays x Bay Centres + width of one upright + foot plate overhang.

Example:

6 bays 1500mm wide (nominal)
 $6 \times 1570 + 55 + 15^{**} (7.5 \times 2) =$
9490mm (**using L1 clip-on foot plates)

Foot plate overhang (on a run length)

Type L1 & L3 = 15mm (7.5mm x 2)
Type LS & LD = 41mm (20.5mm x 2)

Tolerances

Beam span (nominal length) = +/- 1mm
Frame depth = +/- 1.5mm
Bay centres = +/- 2mm

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PRODUCT DESIGNED & MANUFACTURED IN THE UK TO QUALITY MANAGEMENT SYSTEMS CONFORMING TO THE INTERNATIONAL STANDARD BS EN ISO 9001:2000.

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