

Our shoring and piling range is extensive, with many combinations of piling and bracing systems available to suit your project needs.

SIG Construction Accessories also offer a design service to make sure you have the most cost effective and efficient solution for the job.



PRODUCTS	PAGE
Mammoth Brace	8
Manhole Brace	9
Design Service	11
Alloy Walers	11
Manhole Shutters	12
Standard & Mini Trench Boxes	12
Manhole Box	12
Magnum Box	12
Extension Bars	13
Drag Box	13
Accessories	13
Trench Sheeting	14
LitePile	15
Steel Sheet Piling	15

## Mammoth Brace

Mammoth brace is a modular system engineered with unique features to maintain excavation integrity, allow on-site flexibility and save time and money on site while meeting your design needs. Most importantly, it provides a safe working environment for excavation workers.

Mammoth is:

- the strongest brace available in the UK\*, up to 25m<sup>2</sup>.
- easy to install.
- versatile on site.
- saves time, money and effort on site.

### Easy, Fast Assembly

Available in 1.5m, 3m, 4.5m and 6m modules, Mammoth fits together with a self-aligning full shear capacity and moment joint, secured with one pin, and can be fitted in any order. This simple, easy assembly requires minimal training, saving time on module layout and applying torque.

### Reduced Deflection

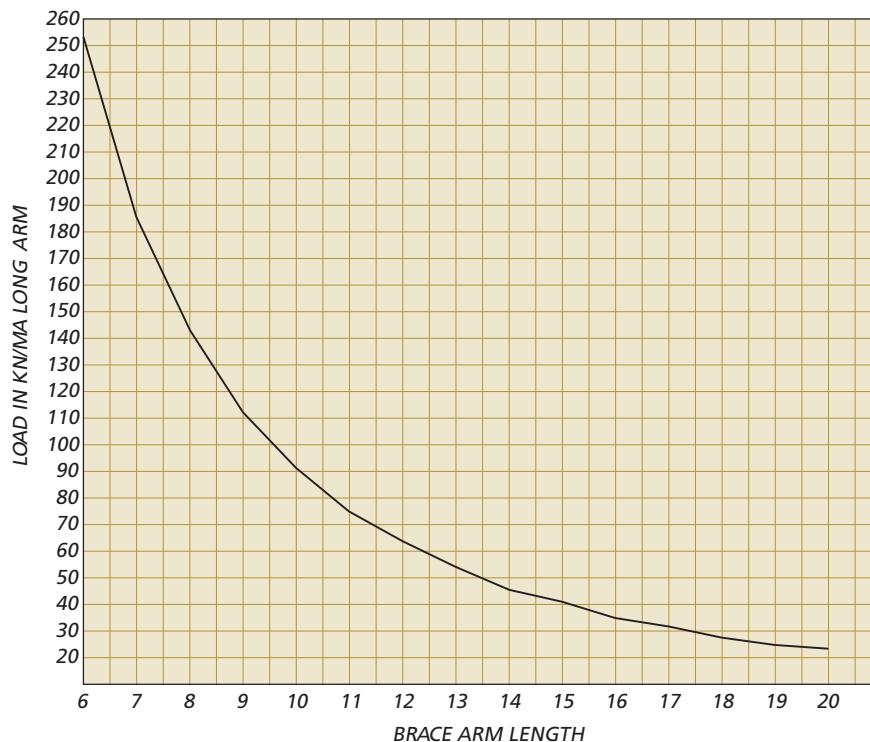
Mammoth has been engineered to maintain excavation integrity, with a double steel beam design able to achieve up to 50% less deflection\* for a given load.

### Reduced Weight

In addition, the brace is up to 30% lighter\* than others on the market. Smaller machines can be used on site and the weight saving means that carriage costs are reduced.

### Increased Load Capacity

The Mammoth 800kN hydraulic power unit has up to 20% more load capacity\* than other systems, so it can support a greater span in poor ground conditions.



### Over-Dig Allowance

Mammoth's hydraulic unit also extends up to 1.7m, allowing an overall overlap of up to 200mm. This means that if over-digging occurs, the hydraulic unit can extend 200mm to cover the gap between modules, creating dig flexibility and convenience on site.

### Safe Cross Bracing

Cross brace connection points have been designed into the modules. This allows a positive connection between the module and the cross brace, preventing cross brace slippage and ensuring a safe working environment.

### Quality Assured

Mammoth Brace is ISO9001 manufactured. The design of the brace conforms to BS449 allowable stress designs and is manufactured to industry standards conforming to BSEN ISO 15609-1 2004 and BSEN 287-1 2004.

\*Comparisons made are with other products within Mammoth's size class.



**Mammoth Brace Component Make Up Table**

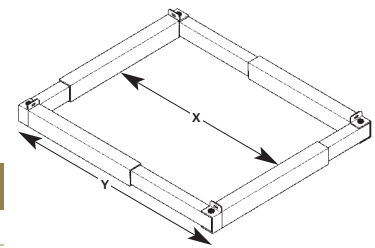
Left Hand Hydraulic End	Hydraulic Jack	1.5m Beam	3.0m Beam	4.5m Beam	6.0m Beam	Right Hand End	Sheet to Sheet		Internal Clearance	
							Hydraulic Unit Fully Closed (mm)	Hydraulic Unit Fully Open (mm)	Hydraulic Unit Fully Closed (mm)	Hydraulic Unit Fully Open (mm)
1	1					1	5701	7301	4622	6222
1	1	1				1	7201	8801	6122	7722
1	1		1			1	8701	10301	7622	9222
1	1			1		1	10201	11801	9122	10722
1	1				1	1	11701	13301	10622	12222
1	1	1			1	1	13201	14801	12122	13722
1	1		1		1	1	14701	16301	13622	15222
1	1			1	1	1	16201	17801	15122	16722
1	1				2	1	17701	19301	16622	18222
1	1	1			2	1	19201	20801	18122	19722
1	1		1		2	1	20701	22301	19622	21222
1	1			1	2	1	22201	23801	21122	22722
1	1				3	1	23701	25301	22622	24222

**Manhole Brace (Single & Double Acting)**

All our hydraulic brace arms are interchangeable to form rectangular excavation support from 1.6m to 9.4m on plan.

**Flat Plate Anchor Lifting Sockets**

Leg Type	Clear Internal Dimension (X)		Dimension Over Frame (Y)		Frame Weight (kg)
	Min (mm)	Max (mm)	Min (mm)	Max (mm)	
A	1320	1920	1600	2200	312
B	1820	2720	2100	3000	380
C	2420	3920	2700	4200	1004
D	3340	5720	3700	6000	1720
E	5746	8846	6347	9447	5200



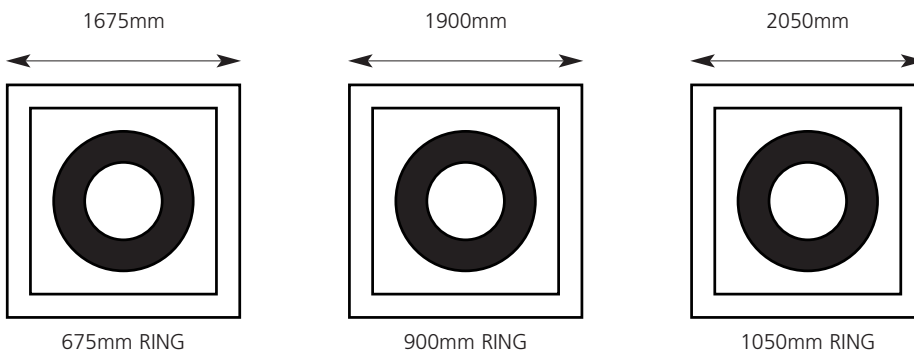
**Combination Frames**

A/B	1320 x 1820	1920 x 2720	1600 x 2100	2200 x 3000	346
A/C	1320 x 2420	1920 x 3920	1600 x 2700	2200 x 4200	658
A/D	1320 x 3420	1920 x 5720	1600 x 3700	2200 x 6000	1016
B/C	1820 x 2420	2720 x 3920	2100 x 2700	3000 x 4200	692
B/D	1820 x 3420	2720 x 5720	2100 x 3700	3000 x 6000	1050
C/D	2420 x 3420	3920 x 5720	2700 x 3700	4200 x 6000	1362
A/E	1320 x 5746	1920 x 8846	1600 x 6347	2200 x 9447	2756
B/E	1820 x 5746	2720 x 8846	2100 x 6347	3000 x 9447	2790
C/E	2420 x 5746	3920 x 8846	2700 x 6347	4200 x 9447	3102
D/E	3340 x 5746	5720 x 8846	3700 x 6347	6000 x 9447	3460

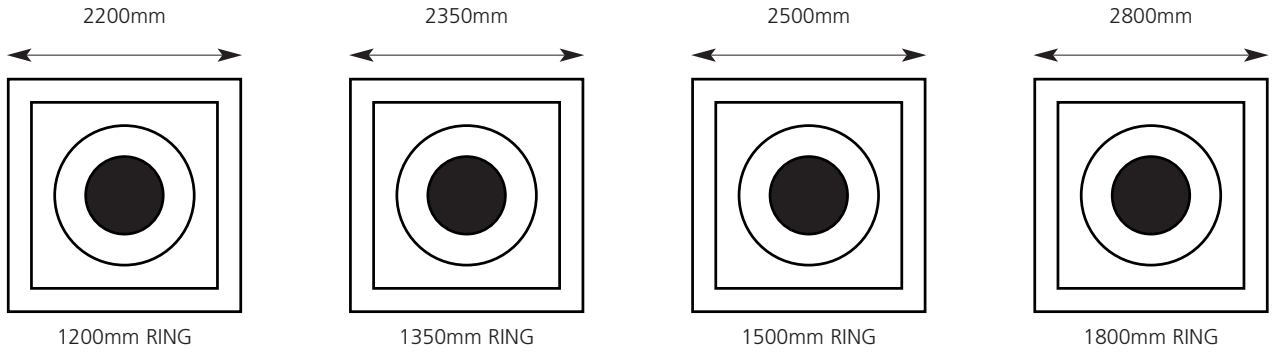


**Manhole Brace (Section)**

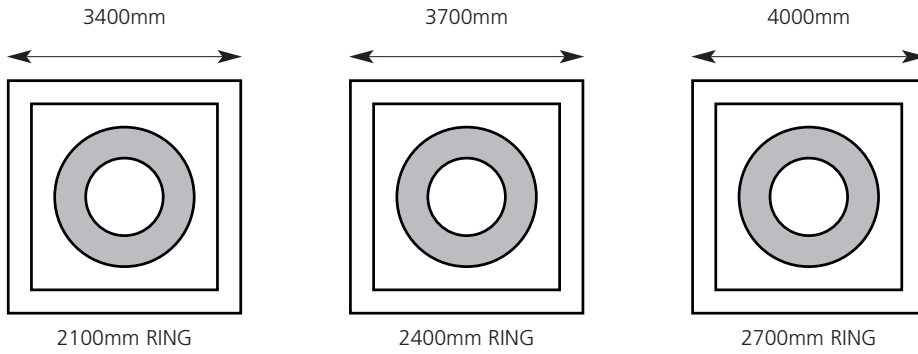
**TYPE A**



**TYPE B**



**TYPE C**

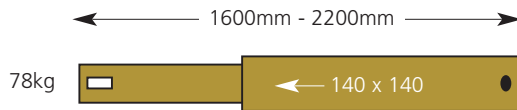


**Dimensions allow for:**

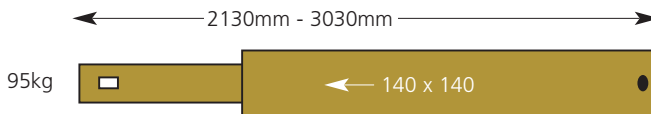
- 150mm ring thickness
- 150mm concrete cover each side
- 300mm working space each side

**Manhole Brace (Dimensions & Weights)**

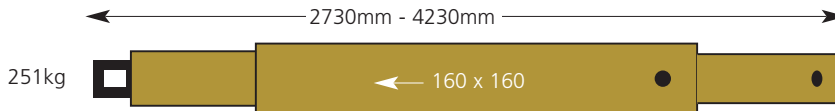
**TYPE A**



**TYPE B**



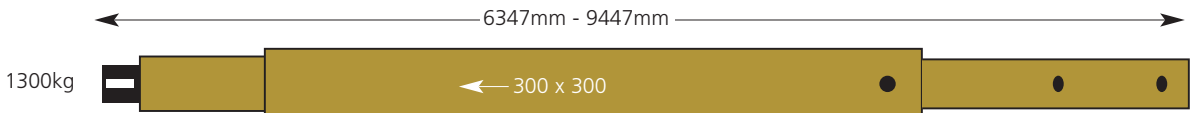
**TYPE C**



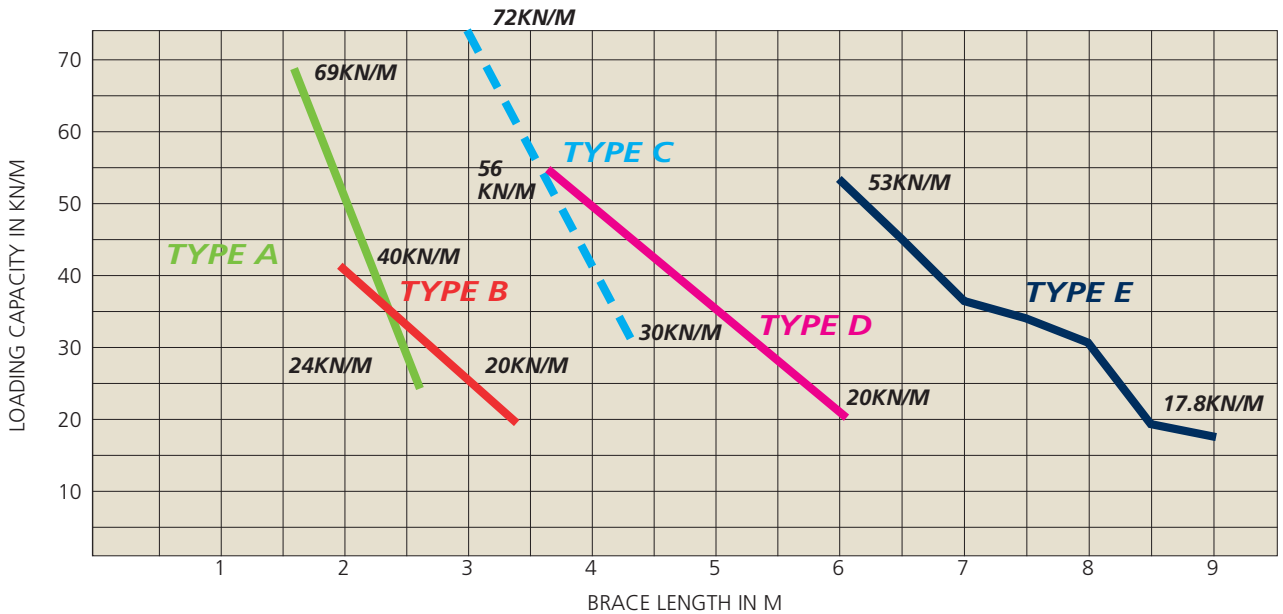
**TYPE D**



**TYPE E**



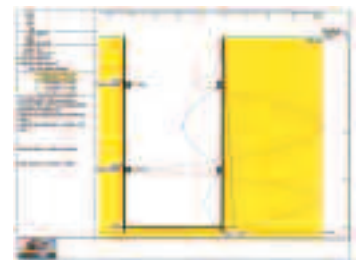
## Manhole Brace (Loading)



When mixing arm lengths to produce rectangular support, the safe working load of the lowest rated arm should be used to calculate the frame performance.

## Design Service

SIG Construction Accessories offer a design service to support the hire of excavation support equipment. All customers are able to utilise this service in order to obtain the most economical and safe shoring solution for their particular needs. Drawings accompany all designs to indicate the solutions proposed with Method Statements and Installation Instructions provided when required. Personal site experience as well as customer preferences are used and customised to complete the final design.



## Alloy Walers

A hydraulically operated horizontal support used with SIG Construction Accessories Trench Sheets allowing clear working areas for the installation of pipework etc. Generally used when cross services are encountered.

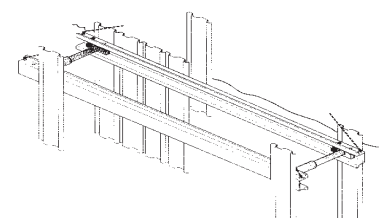
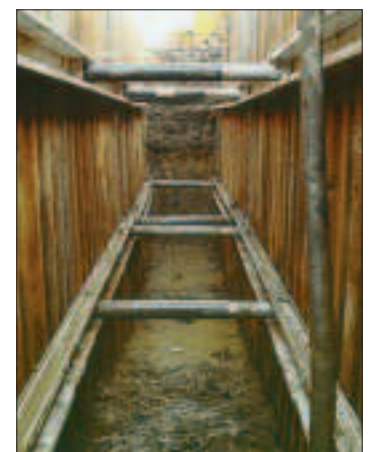
2.5m to 5.0m long, 0.5m to 3.0m wide.

### Waler Cylinder Dimensions

Type	Size (m)
Type A Waler Cylinder	0.505 - 0.805
Type B Waler Cylinder	0.705 - 1.205
Type C Waler Cylinder	1.105 - 1.605
Type D Waler Cylinder	1.505 - 2.005
1m Waler Cylinder Extension	

Weight 11kg per metre eg. 3m = 33kg.

Waler beam maximum bend 22.91kN/m, waler cylinder 80 kN/m.



## Manhole Shutters

Available in two heights:  
1800mm x 900mm up to 2.7m in diameter



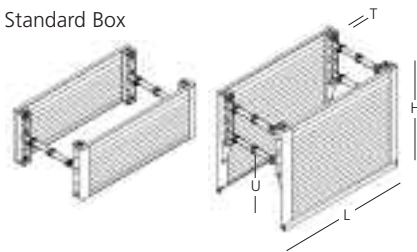
## Standard and Mini Trench Boxes

Used to support the sides of excavations, generally for the laying of pipes.

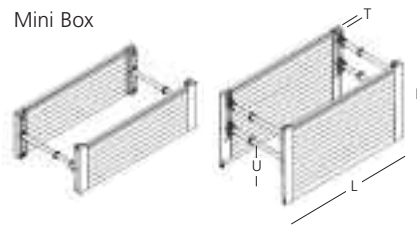
### Trench Boxes

Length (L) (m)	Height (H) (m)	Min. Width External (m)	Max. Width External (m)	Min. Width Internal (m)	Max. Width Internal (m)	Thickness (T) (m)	Max. Clearance Between Struts (mm)	Max. Clearance Below Bottom Strut (U) (mm)	Permissible SWL (kN/m <sup>2</sup> )	Weight (kg)
<b>Standard Box Top Unit</b>										
3.40	1.32	0.94	4.37	0.76	4.19	0.90	2950	N/A	34.1	1253
<b>Standard Box Base Unit</b>										
3.40	1.32	0.94	4.37	0.76	4.19	0.90	2950	1.45	34.1	1850
<b>Mini Box Top Unit</b>										
3.00	0.96	0.80	4.07	0.64	3.91	0.80	2950	N/A	25.0	713
<b>Mini Box Base Unit</b>										
3.00	1.95	0.80	4.07	0.64	3.91	0.80	2950	1.18	25.0	1075

Standard Box



Mini Box

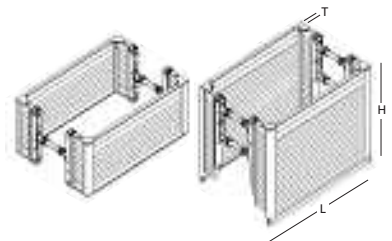


## Manhole Box

Used for the support of manhole excavations up to 7 metres in depth. A clearance of 1500mm below the lowest strut allows the installation of a variety of pipe diameters. 2.5m - 3.5m square.

### Manhole Box

Length (L) (m)	Height (H) (m)	Min. Width Internal (m)	Max. Width Internal (m)	Thickness (T) (m)	Min. Width Between Struts (mm)	Max. Width Below Bottom Struts (U) (mm)	Permissible SWL (kN/m <sup>2</sup> )	Weight (kg)
<b>Manhole Box Top Unit</b>								
2.50	1.50	1.70	3.73	0.90	2050	N/A	34.1	1807
3.00	1.50	1.70	3.73	0.90	2550	N/A	34.1	1973
3.50	1.50	1.70	3.73	0.90	3050	N/A	34.1	2132
<b>Manhole Box Base Unit</b>								
2.50	2.50	1.70	3.73	0.90	2050	1450	34.1	2287
3.00	2.50	1.70	3.73	0.90	2250	1450	34.1	2592
3.50	2.50	1.70	3.73	0.90	3050	1450	34.1	2801



## Magnum Box

The largest in the range of trench box systems used for deep pipe laying activities.

### Magnum Box

Length (L) (m)	Height (H) (m)	Min. Width Internal (m)	Max. Width Internal (m)	Thickness (T) (m)	Min. Width Between Struts (mm)	Max. Width Below Bottom Struts (U) (mm)	Permissible SWL (kN/m <sup>2</sup> )	Weight (kg)
<b>Magnum Box Top Unit</b>								
3.40	1.32	0.80	4.23	0.90	2950	N/A	34.1	1377
<b>Magnum Box Base Unit</b>								
3.40	3.96	0.80	4.23	0.90	2950	2460	34.1	3875



## Extension Bars (Magnum, Manhole & Trench Box)

Should any of the trench boxes require extending in width, the following (universal) extension bars are available – 4 No per Base Unit, 2 No per Top Unit.

### Extension Bars

Type	Length (m)	Weight (kg)
Type 0	0.55	18.7
Type 1	0.59 - 0.89	34.0
Type 2	0.94 - 1.59	49.0
Type 3	1.64 - 2.99	79.0



## Drag Box

Used to provide an ideal safe working environment during pipe laying operations. Drag boxes are to be used in stable ground conditions where speed of production is required.

### Drag Box

Length (L) (m)	Height (H) (m)	Min. Internal Trench Width (m)	Max. Internal Trench Width (m)	Min. Width Between Struts (mm)	Max. Width Below Bottom Strut (U) (mm)	Weight (kg)
<b>Drag Box Top Unit</b>						
5.00	1.80	0.80	2.50	4200	N/A	2240
<b>Drag Box Base Unit</b>						
5.00	2.50	0.80	2.50	4200	1700/1400	3050



## Accessories

### Installation Kit

Single and double acting shoring fluid.



### Clamps

- A. Camlock Pile Lifting Clamp
- B. Trench Sheet Extraction Clamp

Pile lifting clamps available in 2 tonne swl, 3 tonne swl and 5 tonne swl.



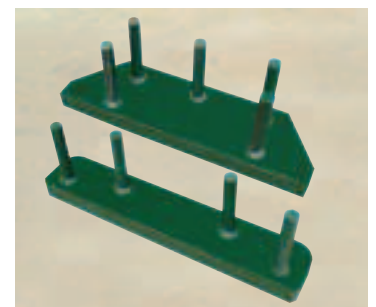
### Four Leg Chain

For use with trench boxes, manhole braces and walers.



### Driving Caps

From standard, interlocking trench sheeting to heavy duty trench sheeting and litepile.



### Snatch Chain



### Interlink Chain

For use with walers and hydraulic frames.



### Universal Driving Cap



## Ladders, Pole / Steel

### Pole Ladders

Quality timber ladders varnished all over for extra protection. From 3m to 10m length – in one metre increments.

### Steel Ladders

Heavy duty steel ladders in sizes 3 metre to 8 metre lengths – in one metre increments.

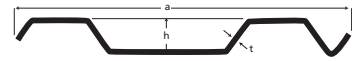


## Trench Sheeting

### Standard

Overlapping profile in mild steel available in lengths from 1.0m - 8.0m.

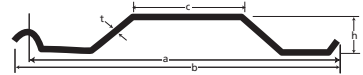
a (mm)	Effective Width per Sheet	h (mm)	t (mm)	kg per Linear metre	kg per sq.m	Section Modulus per Sheet	Bending Moment (KNm/m)
350	330	35	3.4	10.86	32.91	15.93	7.75



### HD1

Overlapping profile in high yield steel, available in lengths from 3.0m - 12.0m.

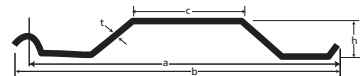
a (mm)	b (mm)	c (mm)	h (mm)	t (mm)	kg per Linear metre	kg per sq.m of wall	Section Modulus per Sheet	Section Modulus cm <sup>3</sup> per metre	Bending Moment (KNm/m)
742	764	267	90	6	40.90	55.12	143.75	193.74	45.2



### HD2

Overlapping profile in high yield steel, available in lengths from 3.0m - 12.0m.

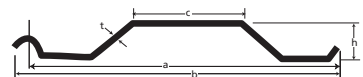
a (mm)	b (mm)	c (mm)	h (mm)	t (mm)	kg per Linear metre	kg per sq.m of wall	Section Modulus per Sheet	Section Modulus cm <sup>3</sup> per metre	Bending Moment (KNm/m)
742	764	267	90	8	54.17	73.01	187.91	253.25	59



### BD500

Overlapping profile in high yield steel, available in lengths from 3.0m - 12.0m.

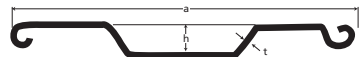
a (mm)	b (mm)	c (mm)	h (mm)	t (mm)	kg per Linear metre	kg per sq.m of wall	Section Modulus per Sheet	Section Modulus cm <sup>3</sup> per metre	Bending Moment (KNm/m)
508	522.9	220	50	6	27.74	54.61	51.25	100	36.41



### L8 Interlock

Interlocking profile in mild steel available in lengths from 1.0m - 8.0m.

a (mm)	effective width per sheet	h (mm)	t (mm)	kg per Linear metre	kg per sq.m	Section Modulus per sheet	Bending Moment (KNm/m)
460	432	35	3.4	14.52	33.61	22.23	8.22

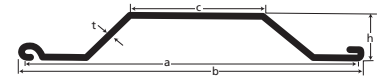


## LitePile

### BV11 'Litepile'

Interlocking profile in mild steel available in lengths from 2.0m - 8.0m.

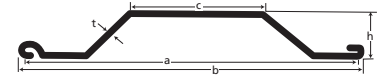
a (mm)	b (mm)	c (mm)	h (mm)	t (mm)	kg per Linear metre	kg per sq.m of wall	Section Modulus per Sheet	Section Modulus cm <sup>3</sup> per metre	Bending Moment (KNm/m)
600	640	215	128	3.5	23.01	38.30	108.00	180.00	33.00



### BV12 'Litepile'

Interlocking profile in mild steel available in lengths from 2.0m - 8.0m.

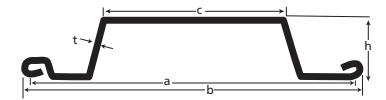
a (mm)	b (mm)	c (mm)	h (mm)	t (mm)	kg per Linear metre	kg per sq.m of wall	Section Modulus per Sheet	Section Modulus cm <sup>3</sup> per metre	Bending Moment (KNm/m)
600	640	215	129	5	32.70	54.51	154.00	257.00	47.11



### BV13 'Litepile'

Interlocking profile in mild steel available in lengths from 2.0m - 8.0m. Minimum order quantities apply.

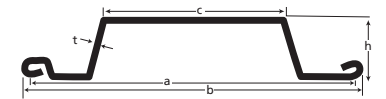
a (mm)	b (mm)	c (mm)	h (mm)	t (mm)	kg per Linear metre	kg per sq.m of wall	Section Modulus per Sheet	Section Modulus cm <sup>3</sup> per metre	Bending Moment (KNm/m)
700	741	313	149	6	47.19	67.41	286.00	409.00	74.9



### BV15 'Litepile'

Interlocking profile in mild steel available in lengths from 2.0m - 8.0m. Minimum order quantities apply.

a (mm)	b (mm)	c (mm)	h (mm)	t (mm)	kg per Linear metre	kg per sq.m of wall	Section Modulus per Sheet	Section Modulus cm <sup>3</sup> per metre	Bending Moment (KNm/m)
700	741	313	150	7	55.00	78.57	332.00	474.00	86.9

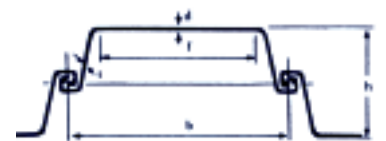


## Steel Sheet Piling

SIG Construction Accessories Steel Sheet Piles are used for permanent and temporary works structures. The section of the pile interlocks and produces a continuous wall with a succession of closely fitting joints. A range of corner and junction piles are available to suit all requirements. We consistently hold large stocks of steel sheet piles in the UK allowing a rapid response to customer needs.

### Larsen Range

Section	b (mm)	h (mm)	d (mm)	t (mm)	f Flat of Pan (mm)	Sectional Area (cm <sup>2</sup> /m)	Mass (kg/m)	Mass (kg/m <sup>2</sup> )	Combined Moment of Inertia (cm <sup>4</sup> /m)	Section Modulus (cm <sup>3</sup> /m)
L601	600	310	7.5	6.4	253	98.3	46.3	77.2	11,496	742
L602	600	310	8.2	8	250	115.4	54.3	90.5	13,075	845
L603	600	310	9.7	8.4	384	137.6	64.8	108	18,251	1,180
L604	600	380	10.5	9	382	157.3	74.1	123.5	30,726	1,620
L605	600	410	12.8	9	367	174.9	82.4	137.3	41,127	2,006
L606	600	420	16.5	9.2	348	201.3	94.8	158	52,631	2,506
L607	600	435	21.5	9.8	380	243	114.4	191	69,600	3,200



### Corner/Junction Piles



### Trench Struts To BS 4074

Size	Length (m)	Max Load Capacity (kN)	Weight (kg)
Size 0	0.32 - 0.47	35.0	3.98
Size 1	0.49 - 0.73	35.0	5.78
Size 2	0.69 - 1.09	35.0	7.74
Size 3	1.03 - 1.73	35.0	11.04



### Steel Props

Adjustable steel props to BS4074.

Size	Length (m)	Max Load Capacity (kN)	Weight (kg)
Size 0	1.04 - 1.82	32.0	12.25
Size 1	1.75 - 3.12	32.0	18.42
Size 2	1.98 - 3.35	32.0	19.56
Size 3	2.59 - 3.96	32.0	22.28
Size 4	3.20 - 4.88	24.0	26.34



**For safety & security  
fencing please see  
the Protection section**

