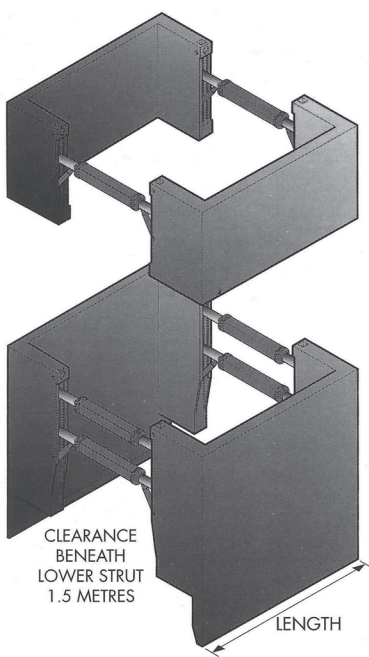


MANHOLE BOX

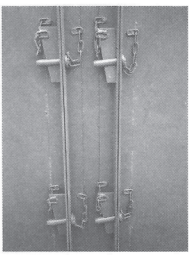
- rapid construction of manholes
- suitable for depths of up to 6000mm
- 1500mm clearance under bottom strut
- wider trench widths using spacer extensions



BASE LENGTH	2.5m	3.0m	3.5m	4.0m	4.5m
WEIGHT (kg)	2287	2592	2801	3247	3447
HEIGHT (mm)	2600	2600	2600	2600	2600
MAX SAFE WORKING LOAD (kN/m²)	35	35	35	38.7	37.4
TOP					
WEIGHT (kg)	1807	1973	2132	1870	1970
HEIGHT (mm)	1420	1420	1420	1500	1500
MANHOLE RING SIZE (mm)	1050	1350	1800	2100	2400
	1200	1500	2100	2400	2700
	1350	1800	•	2700	2800
CLEARANCE BENEATH	1.5m	1.5m	1.5m	1.2m	1.2m
BOTTOM STRUT					
DISTANCE BETWEEN STRUTS (mm)	2050	2550	3050	3500	4000

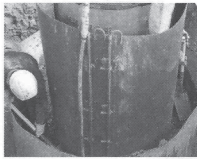
MANHOLE SHUTTERS

- durable, adjustable and lightweight
- easily assembled via simple pin and wedge system

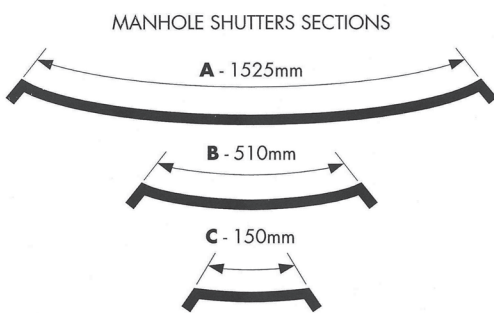


The Steel Manhole Shutter are a lightweight, yet very durable adjustable external shutter for the forming of concrete around the outside of pre-cast manhole rings. Assuming a standard concrete thickness of 150mm has to be cast then different combinations of standard panels enable the same shutters to be used for manhole rings of internal diameter 675mm to 2700mm.

Since the outside diameter of manhole rings may vary a small panel is supplied with most sets to ensure 150mm of cover.

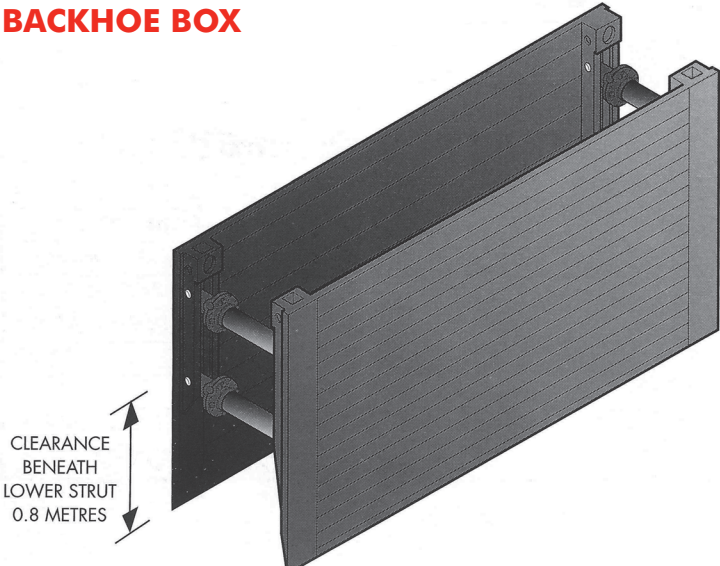


MANHOLE SHUTTERS				
Panel Height	Type	Width	Weight	
2.2m	A	1525mm	64kg	
2.2m	B	510mm	30kg	
2.2m	C	150mm	26kg	
1.8m	A	1525mm	54kg	
1.8m	B	510mm	31kg	
1.8m	C	150mm	21kg	
0.9m	A	1525mm	27kg	
0.9m	B	510mm	15kg	
0.9m	C	150mm	11kg	



MANHOLE SHUTTERS			
Internal Diameter of Manhole (mm)	Sections Required		
	A (large)	B (medium)	C (small)
675	2	1	-
900	2	2	1
1050	3	-	1
1200	3	1	1
1350	3	2	1
1500	4	-	1
1800	4	2	1
2100	5	1	1
2400	6	-	1
2700	6	2	1
Height of Shutters 900mm, 1800mm			

BACKHOE BOX



- handled by small excavator
- strong, lightweight units suitable for installation of domestic services
- 0.8m clearance beneath strut

SPECIFICATIONS	BASE
LENGTH	2.95m
HEIGHT	1.6m
WEIGHT	720kg
TRENCH WIDTH:	
MINIMUM INTERNAL	650mm
MAXIMUM INTERNAL	1030mm
MINIMUM EXTERNAL	780mm
MAXIMUM EXTERNAL	1160mm
CLEARANCE BENEATH BOTTOM STRUT	0.8m
DISTANCE BETWEEN STRUTS	2500mm
MAXIMUM SAFE WORKING LOAD (kN/m²)	17.5
PANEL THICKNESS	60mm
Trench widths down to 640mm can be achieved using mini spindle.	

MINI TRENCH BOX

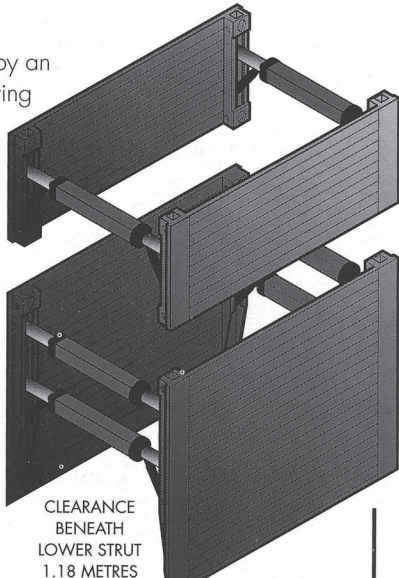
Trench Boxes are simple modular units which can be easily and quickly installed by an excavator to provide strong, reliable shoring for most ground conditions whilst giving full protection for operatives in every stage of installation and removal.

SPECIFICATIONS		BASE	TOP
LENGTH		3.0m	3.0m
HEIGHT		1.95m	0.96m
WEIGHT		1150kg	641kg
MINIMUM TRENCH WIDTH:		0.8m*	0.8m*
MAXIMUM TRENCH WIDTH:			
WITHOUT EXTENSION BARS		1.24m	1.24m
WITH EXTENSION BARS		4.5m	4.5m
CLEARANCE BENEATH BOTTOM STRUT		1.18m	-
DISTANCE BETWEEN STRUTS		2550mm	2550mm
MAXIMUM SAFE WORKING LOAD (kN/m ²)		24.6	24.6
PANEL THICKNESS		80mm	80mm

*Trench widths down to 640mm can be achieved using mini spindle.

No. of extension bars required per strut		0	1	2	3	4	5	6
TRENCH WIDTH	Minimum.	0.80m	1.35m	1.90m	2.45m	3.00m	3.55m	4.10m
TRENCH WIDTH	Maximum.	1.24m	1.79m	2.34m	2.89m	3.44m	3.99m	4.54m

CLEARANCE
BENEATH
LOWER STRUT
1.18 METRES



STANDARD TRENCH BOX

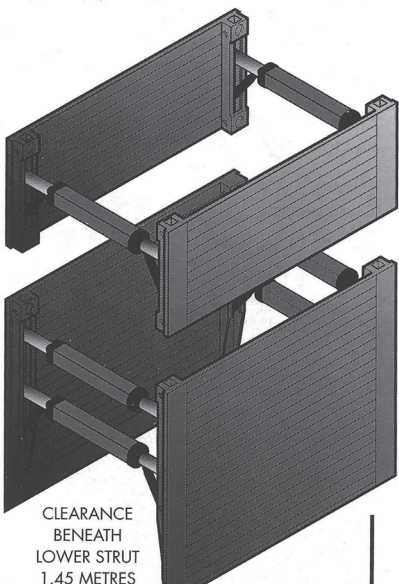
- trench depths up to 6.0m
- larger internal working area
- clearance of 1.45m beneath strut

SPECIFICATIONS		BASE	TOP
LENGTH		3.4m	3.4m
HEIGHT		2.6m	1.32m
WEIGHT		1827kg	1050kg
MINIMUM TRENCH WIDTH:		0.94m*	0.94m*
MAXIMUM TRENCH WIDTH:			
WITHOUT EXTENSION BARS		1.385m	1.385m
WITH EXTENSION BARS		4.5m	4.5m
CLEARANCE BENEATH BOTTOM STRUT		1.45m	-
DISTANCE BETWEEN STRUTS		2950mm	2950mm
MAXIMUM SAFE WORKING LOAD (kN/m ²)		34.1	34.1
PANEL THICKNESS		90mm	90mm

*Trench widths down to 640mm can be achieved using mini spindle.

No. of extension bars required per strut		0	1	2	3	4	5	6
TRENCH WIDTH	Minimum.	0.945m	1.49m	2.04m	2.59m	3.14m	3.69m	4.24m
TRENCH WIDTH	Maximum.	1.38m	1.93m	2.48m	3.03m	3.58m	4.13m	4.68m


CLEARANCE
BENEATH
LOWER STRUT
1.45 METRES



MAGNUM TRENCH BOX

- easier installation of large diameter pipes/culverts
- greater clearance of 2.45m

SPECIFICATIONS		BASE	TOP
LENGTH		3.4m	3.4m
HEIGHT		4.0 m	1.32m
WEIGHT		3000kg	1050kg
MINIMUM TRENCH WIDTH:		1.05m	0.945m
MAXIMUM TRENCH WIDTH:			
WITHOUT EXTENSION BARS		1.49m	1.385m
WITH EXTENSION BARS		4.5m	4.5m
CLEARANCE BENEATH BOTTOM STRUT		2.45m	-
DISTANCE BETWEEN STRUTS		2950mm	2950mm
MAXIMUM SAFE WORKING LOAD (kN/m ²)		34.1	34.1
PANEL THICKNESS		90mm	90mm



CLEARANCE
BENEATH
LOWER STRUT
2.45 METRES

No. of extension bars required per strut		0	1	2	3	4	5	6
TRENCH WIDTH	Minimum.	1.05m	1.60m	2.15m	2.78m	3.33m	3.88m	4.43m
TRENCH WIDTH	Maximum.	1.49m	2.04m	2.59m	3.14m	3.77m	4.32m	4.87m



MANHOLE FRAMES – ALUMINIUM WALER FRAMES – STEEL WALER FRAMES

	Hyrrauleic	EXT 1	EXT 2	EXT 3	EXT 4	EXT 5	EXT 6
	Cylinder Ram	100	200	300	400	500	1000
MINIMUM TRENCH WIDTH (mm)	500	600	700	800	900	1000	1500
MAXIMUM TRENCH WIDTH (mm)	820	920	1020	1120	1220	1320	1820

SWL KN/M²		WEIGHT (kg)						
2.0 WALER C/W 2CL	39.6	70	72	73	74	75	76	77
2.5 WALER C/W 2CL	37.4	81	83	85	87	89	91	93
3.0 WALER C/W 2CL	32.9	92	94	96	98	100	102	105
3.5 WALER C/W 2CL	28.3	103	105	107	109	1110	113	116
4.0 WALER C/W 2CL	24.7	138	141	143.5	147	150	153	157
5.0 WALER C/W 2CL	21.5	1488	151	153.5	157	160	163	167

Double Acting Manhole Frames Loading details given at full extension

MAXIMUM EXTENSION	SWL KN/M²	WEIGHT
Type A (2.0m to 3.0m)	65.0	960kg
Type B (3.0m to 4.0m)	41.0	1068kg
Type C (4.0m to 5.0m)	25.0	1288kg
Type D (5.0m to 6.0m)	18.0	1580kg
Type E (6.0m to 7.0m)	18.5	1800kg

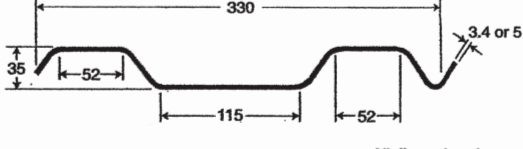


STANDARD LAP
OVERLAPPING PROFILE

Lap is a lightweight piling profile and is suitable for temporary or permanent applications. Designed to achieve a high strength to weight ratio, Lap is manufactured from 3.4 or 5.0mm steel and is available self-coloured or hot dip galvanised to BS EN ISO 1461.

Heavy duty sheets available on request

Product	Area (mm²)		Weight (Kg)		Section Modulus (cm³)		I' Value (cm⁴)		Maximum Design Stress (N/mm²)
	per sheet	per metre width	per linear metre	per m²	per metre width	per sheet	per metre width	per sheet	
Lap 3.4mm	1384	4193	10.8	32.9	48.3	15.9	81.7	26.9	184
Lap 5.0mm	2005	6076	15.7	47.7	71.2	23.5	119.7	39.5	184



All dimensions in mm.

INTERLOCKING L8

L8 is a proven and well recognised product that provides the specifier/installer with a number of advantages. A unique side locating, interlocking, watertight clutch ensures ease of installation, particularly in areas of restricted height, such as under bridges. Its wider cover width further saves on installation costs and time, yet the product still remains compatible with other interlocking sheets.

Designed to achieve the perfect balance between strength, weight and resistance to installation damage, Interlocking L8 really is a profile you can bank on! Available self-coloured or hot dip galvanised BS EN ISO 1461.

Product	Area (mm²)		Weight (Kg)		Section Modulus (cm³)		I' Value (cm⁴)		Maximum Design Stress (N/mm²)
	per sheet	per metre width	per linear metre	per m²	per metre width	per sheet	per metre width	per sheet	
L8 Interlocking 3.4mm	1850	4281	14.5	33.6	51.5	22.2	84.9	36.6	184

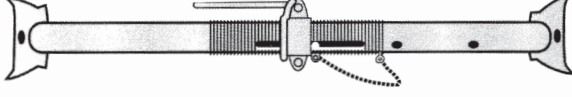


TRENCH STRUTS

Timber walings to be used between the struts and trench sheets.

Turned end plate corners to provide 'bite' into timber walings.

Trench struts, suggested working load for all sizes in the open or closed position 3 tonnes.



Code	size	closed	extended	weight
TS0	0	1'0"	1'6"	11lb
TS1	1	1'6"	2'4"	16lb
TS2	2	2'3"	3'9"	21lb
TS3	3	3'5"	5'9"	28lb

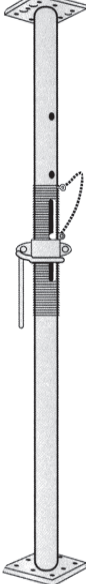
TS0	0	0.30m	0.45m	4.95kg
TS1	1	0.45m	0.71m	7.25kg
TS2	2	0.68m	1.14m	9.52kg
TS3	3	1.04m	1.70m	12.70kg

ADJUSTABLE PROPS

The suggested working loads are the test loads, obtained by independent test figures, for crippling loads factored by 3 where the tube controls the load, and by 1.6 where the pin controls the load.

If the end conditions of the props are such that bending is introduced into the prop tubes, or the stability of the end is reduced, the working loads will be considerably reduced.

6" x 6" (150mm x 150mm)
End Plates are supplied as standard.

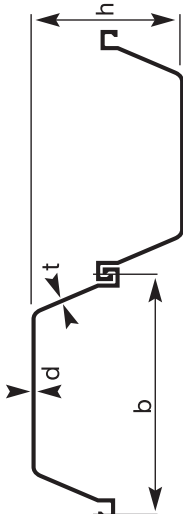


PR0	0	1.04m	1.75m	13.05kg
PR1	1	1.75m	3.12m	20.00kg
PR2	2	1.98m	3.35m	22.50kg
PR3	3	2.59m	3.95m	24.30kg
PR4	4	3.20m	4.87m	28.80kg

Suggested working loads in tonnes

length (metres)	1.8	2.1	2.4	2.7	3.0	3.3	3.6	3.9	4.2	4.5	4.8
(feet)	6'	7'	8'	9'	10'	11'	12'	13'	14'	15'	16'
load	3.0	3.0	3.0	2.6	2.3	2.0	1.7	1.5	1.4	1.3	1.2
No.1 prop											
No.2 prop											
No.3 prop											
No.4 prop											
	controlled by pin			controlled by tube							

LARSEN STEEL SHEET PILES



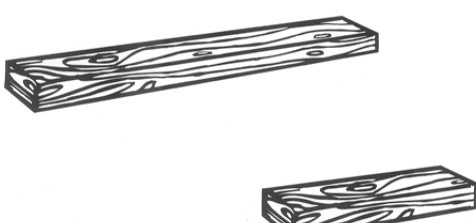
Se ction	b mm (nominal)	h mm (nominal)	d mm	t mm (nominal)	Mass kg per linear metre	kg/m2 of wall	Co mbined moment of inertia cm4/m	Se ction modulus cm3/m
L60 1	600	310	7.5	6.4	46.3	77.0	11520	745
L60 2	600	310	8.2	8.0	53.4	89.0	12870	830
L60 3	600	310	9.7	8.2	64.8	108.0	18600	1200
L603K	600	310	10.0	9.0	68.1	113.0	19220	1240
L60 4	600	380	10.5	9.0	74.5	124.0	30710	1620
L60 5	600	420	12.5	9.0	83.5	139.0	42370	2020
L60 6	600	435	15.6	9.2	94.4	157.0	54370	2500
L60 7	600	435	21.5	9.8	114.5	191.0	69600	3200
L70 3	700	400	9.5	8.0	67.5	96.5	24200	1210
L70 4	700	450	10.2	9.5	80.5	115.0	35200	1600
L755	750	450	1.7	10	95.6	127.5	45000	2000

ROAD PLATES



SIZES ON REQUEST
Available for hire and sale

SLEEPERS



Available for hire and sale

QUICK RELEASE SHACKLES



- A Quick Release Shackle is designed to enable the safe lifting of Sheet Piles in a single operation and, on completion of lifting, can be disconnected from ground level.

TRENCH SHEET EXTRACTOR



- The Trench Sheet Extractor is designed to locate over the end of the Sheet Piles, and is secured by means of a pin inserted through the pre-drilled hole in the top of the pile.

AFF SHORE

