



WATCH ESC INSTALL IT'S
CORNER HOT ROLLED U
SHEET PILE



HOT ROLLED U SERIES

U PROFILE SHEET PILES

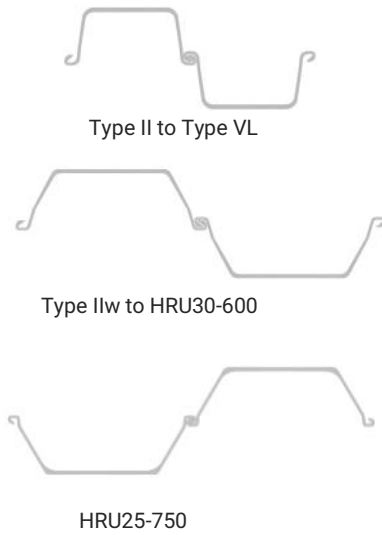
THE MOST COMMONLY USED U SHEET PILES IN THE WORLD

The Hot Rolled U Sheet Pile was produced over 90 years ago and millions of tons of it have been used globally. The thicker rolled flange and interlock design enable multiple reusage making Hot Rolled U Sheet Piles a common choice for temporary works. Utilising various profile and interlock designs, ESC is able to offer stock and made-to-order Hot Rolled U Sheet Piles available from various countries in the world. With stock available in ESC facilities in China, UAE and Japan, ESC is able to respond to urgent customer requests in a timely fashion at competitive prices.

ORDER OPTIONS

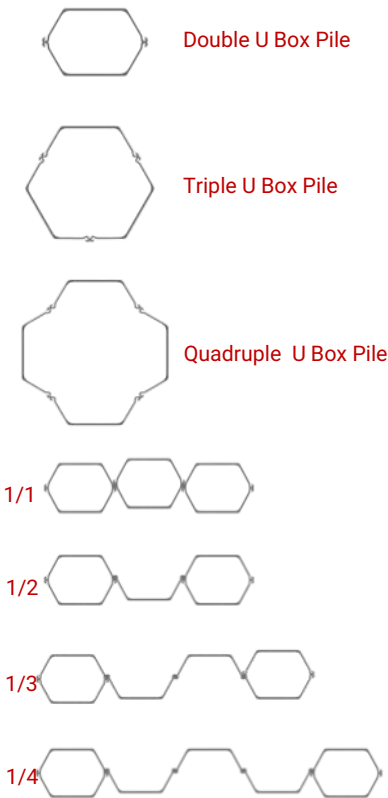
- Steel Grades** ✓ ASTM A572 Gr.50, Gr.55, Gr.60 & Gr.65
- Length** 88.6ft maximum
Standard Stock Lengths of 20ft, 30ft, 40ft, 50ft
- Delivery Options**
 - ✓ Single or Pairs
 - ✓ Pairs either loose, welded or crimped
 - ✓ Lifting Hole
 - ✓ By container (38.7ft or less) or Break Bulk
 - ✓ Corrosion Protection Coatings





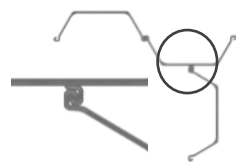
Section	Width	Height	Thickness		Cross Sectional Area	Weight		Elastic Section Modulus	Moment of Inertia	Coating Area (both sides per pile)
	(w)	(h)	Flange (t _f)	Web (t _w)		Per Pile	Per Wall			
	in	in	in	in	in ² /ft	lb/ft	lb/ft ²	in ³ /ft	in ⁴ /ft	ft ² /ft
	mm	mm	mm	mm	cm ² /m	kg/m	kg/m ²	cm ³ /m	cm ⁴ /m	m ² /m
Type II	15.75	7.87	0.41	-	7.22	32.26	24.58	16.26	63.8	4.36
	400	200	10.5	-	152.9	48	120	874	8,740	1.33
Type III	15.75	9.84	0.51	-	9.02	40.32	30.72	24.92	122.64	4.72
	400	250	13	-	191.1	60	150	1,340	16,800	1.44
Type III _s	15.75	11.81	0.52	-	8.78	39.24	29.9	28.27	166.44	4.72
	400	300	13.1	-	186	58.4	146	1,520	22,800	1.44
Type III _w	23.62	14.17	0.53	-	8.18	54.84	27.85	33.48	236.52	6.23
	600	360	13.4	-	173.2	81.6	136	1,800	32,400	1.9
Type II _w	23.62	10.24	0.41	-	6.19	41.53	21.09	18.6	94.9	5.81
	600	260	10.3	-	131.2	61.8	103	1,000	13,000	1.77
Type IV	15.75	13.39	0.61	-	11.42	51.14	38.91	42.22	281.78	5.28
	400	340	15.5	-	242	76.1	190	2,270	38,600	1.61
Type IV _w	23.62	16.54	0.71	-	10.64	71.23	36.25	50.22	413.91	6.53
	600	420	18	-	225.5	106	177	2,700	56,700	1.99
Type VL	19.7	15.76	0.95	-	12.64	70.56	43	58.59	459.9	5.74
	500	400	24.3	-	267.5	105	210	3,150	63,000	1.75
Type VL _L	19.69	17.72	1.09	-	14.43	80.64	49.15	71.05	627.8	5.97
	500	450	27.6	-	305.7	120	240	3,820	86,000	1.82

OTHER CONFIGURATIONS



Section	Width	Height	Thickness		Cross Sectional Area	Weight		Elastic Section Modulus	Moment of Inertia	Coating Area (both sides per pile)
	(w)	(h)	Flange (t _f)	Web (t _w)		Per Pile	Per Wall			
	in	in	in	in	in ² /ft	lb/ft	lb/ft ²	in ³ /ft	in ⁴ /ft	ft ² /ft
	mm	mm	mm	mm	cm ² /m	kg/m	kg/m ²	cm ³ /m	cm ⁴ /m	m ² /m
HRU601-600	23.64	12.214	0.296	0.252	4.65	31.1	15.8	14	84	5.25
	600	310	7.5	6.4	98.3	46.3	77.2	744	11,530	1.6
HRU602-600	23.64	12.214	0.323	0.315	5.36	35.9	18.2	15	94	5.25
	600	310	8.2	8	113.3	53.4	89	830	12,870	1.6
HRU603-600	23.64	12.214	0.382	0.323	6.54	43.5	22.1	22	136	5.54
	600	310	9.7	8.2	138.3	64.8	108	1200	18,600	1.69
HRU607-600	23.64	17.809	0.749	0.418	11.43	76.6	38.9	60	528	6.27
	600	452	19	10.6	241.7	114	190	3200	72,320	1.91
HRU16-600	23.64	16.942	0.402	0.331	7.29	48.8	24.8	31	262	5.71
	600	430	10.2	8.4	154.2	72.6	121	1670	35,950	1.74
HRU18-600	23.64	16.942	0.441	0.355	7.72	51.7	26.3	33	282	5.71
	600	430	11.2	9	163.3	76.9	128.2	1800	38,650	1.74
HRU19-600	23.64	16.942	0.481	0.374	8.14	54.5	27.7	36	302	5.71
	600	430	12.2	9.5	172.3	81.1	135.2	1920	41,320	1.74
HRU20-600	23.64	17.73	0.437	0.355	8.22	55	28	38	339	5.91
	600	450	11.1	9	173.9	81.9	136.5	2060	46,380	1.8
HRU22-600	23.64	17.73	0.477	0.374	8.65	57.9	29.4	41	361	5.91
	600	450	12.1	9.5	182.9	86.1	143.6	2200	49,460	1.8
HRU23-600	23.64	17.73	0.516	0.394	9.08	60.7	30.9	43	383	5.91
	600	450	13.1	10	192	90.4	150.7	2335	52,510	1.8
HRU26-600	23.64	17.809	0.559	0.382	9.78	65.5	33.2	50	442	6.1
	600	452	14.2	9.7	206.8	97.4	162.3	2680	60,580	1.86
HRU28-600	23.64	17.888	0.599	0.398	10.22	68.4	34.7	53	471	6.1
	600	454	15.2	10.1	216.1	101.8	169.6	2840	64,460	1.86
HRU30-600	23.64	17.966	0.638	0.414	10.66	71.4	36.3	56	499	6.1
	600	456	16.2	10.5	225.6	106.2	177.1	3000	68,380	1.86
HRU25-750	29.55	17.73	0.571	0.402	8.89	74.2	30.1	47	411	6.76
	750	450	14.5	10.2	188	110.4	147.2	2500	56,240	2.06

ESC-9J Welded Interlock



U Pile cut in half and welded on flange



Box Piles can be fabricated out of individual U sections to boost the Moment Capacity of the wall without changing the pile profile. Corners and junctions can be implemented using either a welded interlock or slicing a profile and welding it to the end profile.



STEEL GRADES & MANUFACTURING TOLERANCES

HOT ROLLED SHEET PILES

STEEL GRADES

Other Steel Grades are available on request. The Yield Point provided is applicable to thicknesses less than or equal to 16mm.

Region	CLASSIFICATION		Minimum Yield Strength		Ultimate Tensile Strength		Minimum Elongation
	Code	Grade	ksi	MPa	ksi	MPa	%
USA	ASTM A252	Grade 1	30	205	50	345	18
	ASTM A252	Grade 2	35	240	60	415	14
	ASTM A252	Grade 3	45	310	66	455	-
	ASTM A572	Grade 42	42	290	60	415	20
	ASTM A572	Grade 50	50	345	65	450	18
	ASTM A572	Grade 55	55	380	70	485	17
	ASTM A572	Grade 60	60	415	75	520	16
	ASTM A572	Grade 65	65	450	80	550	15
Canada	CSA 40.21	260W	38	260	86	590	20
	CSA 40.21	300W	44	300	90	620	20
	CSA 40.21	350W	51	350	94	650	19
	CSA 40.21	400W	58	400	100	690	16

Region	CLASSIFICATION		Minimum Yield Strength		Ultimate Tensile Strength		Minimum Elongation
	Code	Grade	ksi	MPa	ksi	MPa	%
Europe	EN 10248	S240GP	35	240	49	340	26
	EN 10248	S270GP	39	270	59	410	24
	EN 10248	S320GP	46	320	64	440	23
	EN 10248	S355GP	51	355	70	480	22
	EN 10248	S430GP	62	430	71	490	20
	GB/T 700	Q235B	34	235	73	500	26
China	GB/T 1591	Q345B	50	345	91	630	20
	GB/T 1591	Q345C	50	345	91	630	21
	GB/T 1591	Q390B	57	390	94	650	20
Japan	GB/T 1591	Q420B	61	420	99	680	19
	JIS A5528	SY295	43	295	71	490	17
	JIS A5528	SY390	57	390	78	540	15

MANUFACTURING TOLERANCES TO BS EN 10248



Component	ESC-HRZ Series	Hot Rolled U Series	NS-SP Series	FL Series
Mass	± 5%	± 5%	± 5%	± 5%
Length	± 7.87" / 200mm	± 7.87" / 200mm	± 7.87" / 200mm	± 7.87" / 200mm
Height (≤ 7.87" / 200mm)	± 0.197" / 5.0mm	± 0.157" / 4.0mm	± 0.157" / 4.0mm	N/A
Height (> 7.87" / 200mm & ≤ 11.81" / 300mm)	± 0.236" / 6.0mm	± 0.197" / 5.0mm	± 0.157" / 4.0mm	N/A
Height (> 11.81" / 300mm)	± 0.276" / 7.0mm	± 0.197" / 5.0mm	± 0.157" / 4.0mm	N/A
Thickness (≤ 0.335" / 8.5 mm)	± 0.0197" / 0.5 mm	± 0.0197" / 0.5 mm	± 0.0197" / 0.5 mm	± 0.0197" / 0.5 mm
Thickness (> 0.335" / 8.5 mm)	± 6% of thickness	± 6% of thickness	± 6% of thickness	N/A
Width of Single	± 2% of width	± 2% of width	± 2% of width	± 2% of width
Width of Pair	± 3% of width	± 3% of width	N/A	N/A
Straightness	±0.2% of the length	±0.2% of the length	±0.2% of the length	±0.2% of the length
Squareness of Ends	± 2% of the width	± 2% of the width	± 2% of the width	± 2% of the width

