

ESC-EU SERIES

WIDE U PROFILE SHEET PILES



A WIDE PROFILE SHEET PILE WITH A PIPE CLUTCH OFFERING EFFECTIVE ANNULAR SEALING FOR OUTSTANDING FLUID CUTOFF

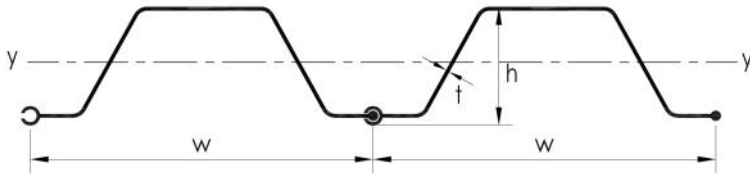
A wide profile pile utilising a robust ball joint clutch, the ESC-EU Series is efficient in terms of weight and installation costs. It is suitable for temporary and permanent works. The profile is especially effective in marine conditions where strength and installation efficiency are premium considerations.

ESC also offers EU sheet piles made in the USA in standard widths for the North American market.

ORDER OPTIONS

- | | |
|-------------------------|---|
| Steel Grades | <ul style="list-style-type: none">✓ Q235B, Q345B, Q345C, Q390B, Q420B✓ S235, S275JR, S355JR✓ ASTM A572 Gr42, Gr50, Gr60✓ Others available on request |
| Length | <ul style="list-style-type: none">14.0m maximumLonger lengths can be spliced (>30m possible)Any project specific length can be produced |
| Delivery Options | <ul style="list-style-type: none">✓ Lifting Hole✓ Grip Plate✓ By container (11.8m 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)	(t)		Per Pile	Per Wall			
	mm	mm	mm	cm ² /m	kg/m	kg/m ²	cm ³ /m	cm ⁴ /m	m ² /m
ESC-EU3	800	171	5.75	73.0	45.90	57.3	330	3,040	1.98
ESC-EU4	770	188	5.75	75.8	45.90	59.5	400	3,900	1.98
ESC-EU5	740	209	5.75	79.0	45.90	62.0	500	5,060	1.98
ESC-EU6	690	237	5.75	84.6	45.90	66.4	600	6,880	1.98
ESC-EU7	730	210	7.75	107.5	61.60	84.4	690	6,870	2.01
ESC-EU8	700	236	7.75	112.2	61.60	88.1	810	8,850	2.02
ESC-EU9	770	261	7.75	114.9	69.50	90.2	910	11,220	2.22
ESC-EU12	1,160	406	7.75	113.5	103.30	89.1	1,250	26,030	3.26
ESC-EU13	1,140	409	7.75	115.4	103.30	90.6	1,300	27,160	3.26
ESC-EU14	1,110	429	7.75	118.6	103.30	93.1	1,410	30,300	3.25
ESC-EU15	1,060	439	7.75	124.2	103.30	97.5	1,520	33,630	3.25
ESC-EU18	1,410	484	9.50	132.2	146.30	103.8	1,800	42,210	3.85
ESC-EU19	1,390	495	9.50	134.1	146.30	105.3	1,870	44,500	3.85
ESC-EU20	1,350	493	9.50	138.0	146.30	108.3	1,950	46,940	3.85
ESC-EU21	1,320	511	9.50	141.3	146.30	110.9	2,080	51,060	3.85
ESC-EU22	1,280	516	9.75	149.0	149.80	117.0	2,200	55,640	3.85
ESC-EU23	1,270	516	9.75	150.3	149.80	118.0	2,270	56,340	3.85
ESC-EU24	1,210	585	9.75	149.0	149.80	117.0	2,400	55,640	3.64
ESC-EU25	1,180	569	9.75	140.1	149.80	110.0	2,500	56,340	3.50
ESC-EU26	1,170	566	9.75	163.2	149.80	128.1	2,600	71,150	3.85
ESC-EU27	1,160	574	9.75	171.5	156.00	134.6	2,680	77,250	3.89
ESC-EU28	1,280	530	11.75	184.8	185.80	145.1	2,760	71,540	3.90
ESC-EU32	1,380	615	11.75	188.5	204.20	148.0	3,200	96,160	4.29
ESC-EU36	1,290	642	11.75	201.7	204.20	158.3	3,590	111,940	4.30
ESC-EU38	1,250	661	11.75	188.5	204.20	163.41	3,800	96,160	3.89
ESC-EU40	1,440	590	15.50	262.3	271.70	205.9	4,600	137,900	4.74
ESC-EU46	1,320	622	15.50	262.3	271.70	205.9	4,600	137,900	4.34
ESC-EU48	1,280	641	15.50	270.3	271.70	212.2	4,800	149,390	4.34
ESC-EU50	1,240	648	15.50	279.1	271.70	219.1	5,000	158,080	3.50
ESC-EU60	1,060	739	15.50	326.5	271.70	256.3	6,000	224,180	4.10
ESC-EU65	1,500	739	18.00	312.1	367.50	245.0	6,500	235,350	3.43
ESC-EU70	1,500	752	20.00	343.9	405.20	270.0	7,080	263,590	3.42
ESC-EU80	1,500	764	22.00	385.5	444.70	302.6	8,010	302,130	3.50

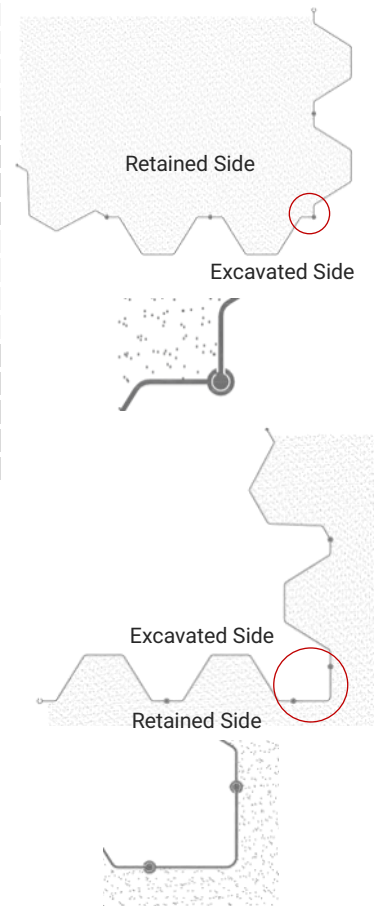
INTERLOCKING CLUTCH



*excludes internal section of interlock

CORNER PILES

The slotted pipe clutch can be orientated at any angle allowing almost any corner configuration, without requiring any wastage or additional welding. For internal corners a special piece can be fabricated with little cost due to the flexibility in the cold forming process. Note that the interlocks should be orientated toward the retained side as shown in the following figures.



NORTH AMERICAN SIZES



Section	Width	Height	Thickness	Cross Sectional Area	Weight		Elastic Section Modulus	Moment of Inertia	Coating Area (both sides per pile)
	(w)	(h)	(t)		Per Pile	Per Wall			
	mm	mm	mm	cm ² /m	kg/m	kg/m ²	cm ³ /m	cm ⁴ /m	m ² /m
ESC-EU14-770	1,540	402	9.525	122.5	148.1	96.1	1,440	30,640	3.91
ESC-EU19-700	1,400	477	9.525	135.1	148.1	106.0	1,930	46,480	3.92
ESC-EU26-700	1,400	480	12.7	180.9	198.8	142.0	2,610	63,010	3.95
ESC-EU38-700	1,400	613	12.7	208.6	229.2	163.8	3,900	119,700	4.55
ESC-EU48-700	1,400	654	15.875	257.0	282.4	201.7	4,740	155,080	4.55
ESC-EU50-580	1,160	712	12.7	251.8	229.2	197.7	5,080	181,880	4.55



STEEL GRADES & MANUFACTURING TOLERANCES

COLD ROLLED & COLD FORMED SHEET PILES

STEEL GRADES

Classification		Mechanical Properties				Chemical Composition % (max)					
		Minimum Yield Point MPa		Ultimate Tensile Strength MPa	Elongation % (min) 3≤t≤40	Impact Strength (Charpy)	C	Si	Mn	P	S
		t≤16	16<t≤40								
BS EN 10025-2: 2004	S275JR	275	265	410-560	23	27J at 20°C	0.21	-	1.50	0.035	0.035
	S275J2	275	265	410-560	21	27J at -20°C	0.18	-	1.50	0.025	0.025
	S355JR	355	345	470-630	22	27J at 20°C	0.24	0.55	1.60	0.035	0.035
BS EN 102481: 1998	S390GP	390	390	≥ 490	20	-	0.24	0.55	1.60	0.04	0.040
	S430GP	430	430	≥510	19	-	0.24	0.55	1.60	0.04	0.040
GB/T 700:2006	Q235B	235	225	375-500	26	27J at 20°C	0.20	0.35	1.40	0.045	0.045
	Q275B	275	265	410-540	22	27J at 20°C	0.21	0.35	1.50	0.045	0.045
GB/T1591:2008	Q345B	345	335	470-630	20	34J at 20°C	0.20	0.50	1.70	0.035	0.035
	Q390B	390	370	490-650	20	34J at 20°C	0.20	0.50	1.70	0.030	0.030
	Q420B	420	400	540-680	19	34J at 20°C	0.20	0.50	1.70	0.030	0.030
	MDB350	350	350	470-630	21	40J at 20°C	0.20	0.50	1.50	0.025	0.020
ASTMA36-14	A36	250	250	400-550	23	-	0.26	0.40	-	0.040	0.050
ASTM A572-2013a	A572 Gr.42	290	290	≥415	20	-	0.21	0.40	1.35	0.040	0.050
	A572 Gr.50	345	345	≥450	18	-	0.23	0.40	1.30	0.040	0.050
	A572 Gr.60	413	413	≥517	16	-	0.26	0.40	1.35	0.040	0.050
ASTM A690-2013a	A690	345	345	>485	21	-	0.22	0.40	0.60-0.90	0.08-.015	0.040
JIS G3101-2010	SS400	245	235	400-510	17 (5<t<16), 21 (t<5 or t>16)	-	-	-	-	0.050	0.050
	SS490	285	275	490-610	15 (5<t<16), 19 (t<5 or t>16)	-	-	-	-	0.050	0.050
	SS540	400	330	≥540	13 (5<t<16), 16 (t<5 or t>16)	-	0.30	-	1.60	0.040	0.040
JIS A5523-2012	SYW295	295	295	≥490	17	43J at 0°C	0.18	0.55	1.50	0.040	0.040
	SYW390	390	390	≥ 540	15	43J at 0°C	0.18	0.55	1.50	0.040	0.040
MS 2025-1:2006	S235JR	235	225	360-510	26	-	0.17	-	1.40	0.035	0.035
	S275JR	275	265	410-560	23	-	0.21	-	1.50	0.035	0.035
	S355JO	355	345	470-630	22	-	0.20	0.55	1.60	0.030	0.030

MANUFACTURING TOLERANCES TO BS EN 10249

Component	Tolerance	Nominal Thickness	Tolerance
Mass	± 5%		
Length	± 50mm		
Height (≤ 200mm)	± 4.0mm	5mm	± 0.29mm
Height (> 200mm & ≤ 300mm)	± 6.0mm	6mm	± 0.31mm
Height (> 300mm & ≤ 400mm)	± 8.0mm	8mm	± 0.35mm
Height (> 400mm)	± 10.0mm	9mm	± 0.40mm
Width of Single Pile	± 2% of width	10mm	± 0.40mm
Width of Double Z or Wide U	± 3% of width	12mm	± 0.43mm
Squareness of Ends	2% of width	13mm	± 0.46mm
		15mm	± 0.46mm

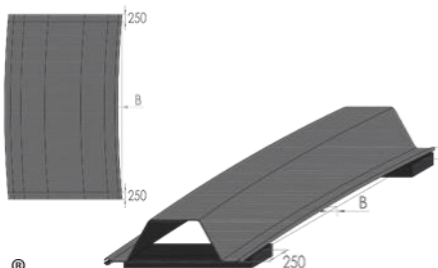
SHEET PILE MARKING

ESC is able to apply adhesive stickers to its products to provide useful information such as destination, order number, project identifier, client name and others. To enable good traceability, material heat number & pile specification is included as standard.

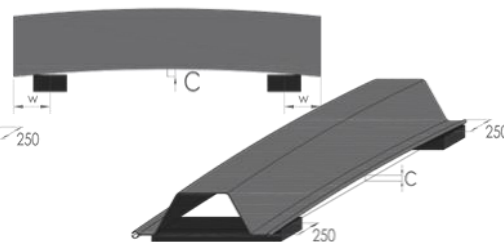


Bending B

±0.2% of the length



Curving C



Twisting T

±0.2% of the length but no more than 100mm

