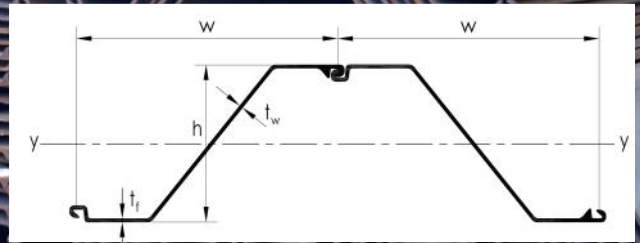
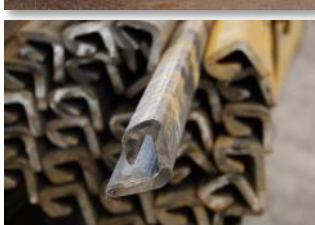
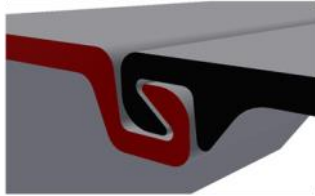


ESC-HRZ SERIES

HOT ROLLED SHEET PILES



ESC is proud to present the new Hot Rolled ESC-HRZ Profile Sheet Piles. The design features interlocks that are located symmetrically on both sides of the neutral axis. The web is continuous, thus the section modulus and shear load transfer are optimised. The ESC-HRZ sheet pile features a durable interlock that provides effective water tightness capabilities. The profile design has a very competitive strength to weight ratio. Due to a deep profile, the design features a higher Inertia resulting in reduced deflection. This higher inertia offers the ability to choose higher steel grades (60ksi or up to 430Mpa) for the most economical solution that meets serviceability requirements. The piles are usually shipped in pairs to accommodate faster installation and better alignment. The ESC-HRZ Sheet Piles conform to both BS EN 10248/10249 and/or ASTM A6.



Section	Width	Height	Thickness		Cross Sectional Area	Weight		Elastic Section Modulus	Moment of Inertia	Coating Area (both side per pile)
	(w)	(h)	Flange (t _f)	Web (t _w)		Per Pile	Per Wall			
	in	in	in	in		lb/ft	lb/ft ²			
	mm	mm	mm	mm	cm ² /m	kg/m	kg/m ²	cm ³ /m	cm ⁴ /m	m ² /m
ESC-HRZ12-770	30.338 770	13.554 344	0.335 8.5	0.335 8.5	14.42 93	48.9 72.8	19.4 94.5	23 1,250	157 31,300	6.43 1.68
ESC-HRZ13-770	30.338 770	13.554 344	0.355 9	0.355 9	15.1 97.4	51.2 76.2	20.3 99	24 1,300	164 22,430	6.43 1.96
ESC-HRZ14-770	30.338 770	13.593 345	0.374 9.5	0.374 9.5	15.78 101.8	53.5 79.6	21.2 103.4	25 1,360	171 23,370	6.43 1.96
ESC-HRZ17-700	27.58 700	16.548 420	0.335 8.5	0.335 8.5	14.42 93	49.3 73.3	21.4 104.7	32 1,740	266 36,430	6.46 1.97
ESC-HRZ18-700	27.58 700	16.587 421	0.355 9	0.355 9	15.1 97.4	51.5 76.7	22.4 109.6	34 1,810	277 38,000	6.46 1.97
ESC-HRZ19-700	27.58 700	16.587 421	0.374 9.5	0.374 9.5	15.78 101.8	53.9 80.2	23.5 114.6	35 1,880	289 39,580	6.46 1.97
ESC-HRZ20-700	27.58 700	16.627 422	0.394 10	0.394 10	16.46 106.2	56.2 83.7	24.5 119.5	36 1,950	300 41,160	6.46 1.97
ESC-HRZ24-700	27.58 700	18.085 459	0.441 11.2	0.441 11.2	18.93 122.1	64.4 95.8	28 136.9	45 2,440	408 55,950	6.73 2.05
ESC-HRZ26-700	27.58 700	18.124 460	0.481 12.2	0.481 12.2	20.34 131.2	69.2 103	30.1 147.1	48 2,600	437 59,840	6.73 2.05
ESC-HRZ27-700	27.58 700	18.163 461	0.5 12.7	0.5 12.7	21 135.5	71.5 106.4	31.1 152	50 2,680	450 61,640	6.73 2.05
ESC-HRZ28-700	27.58 700	18.163 461	0.52 13.2	0.52 13.2	21.75 140.3	74 110.1	32.2 157.3	51 2,760	465 63,740	6.73 2.05
ESC-HRZ36-700	27.58 700	19.661 499	0.591 15	0.441 11.2	123.45 151.3	79.8 118.7	34.7 169.6	67 3,600	655 89,750	7.15 2.18
ESC-HRZ38-700	27.58 700	19.7 500	0.63 16	0.481 12.2	24.99 161.2	85 126.5	37 180.7	71 3,800	693 94,980	7.15 2.18
ESC-HRZ40-700	27.58 700	19.739 501	0.67 17	0.52 13.2	26.52 171.1	90.2 134.3	39.3 191.8	74 4,000	732 100,220	7.15 2.18
ESC-HRZ42-700	27.58 700	19.661 499	0.709 18	0.552 14	28.23 182.1	96.1 143	41.8 204.2	79 4,230	770 105,540	7.12 2.17
ESC-HRZ44-700	27.58 700	19.7 500	0.749 19	0.591 15	29.76 192	101.3 150.7	44.1 215.3	83 4,440	810 110,940	7.12 2.17
ESC-HRZ46-700	27.58 700	19.739 501	0.788 20	0.63 16	31.29 201.9	106.5 158.5	46.4 226.5	86 4,640	848 116,160	7.12 2.17
ESC-HRZ48-700	27.58 700	19.818 503	0.867 22	0.591 15	31.47 203	107 159.3	46.6 227.6	89 4,790	879 120,470	7.12 2.17
ESC-HRZ50-700	27.58 700	19.858 504	0.906 23	0.63 16	32.92 212.4	112 166.7	48.8 238.2	92 4,970	915 125,360	7.12 2.17
ESC-HRZ52-700	27.58 700	19.897 505	0.946 24	0.67 17	34.43 222.1	117.1 174.3	51 249	96 5,160	952 130,400	7.12 2.17

Interlock Compatibility - Compatible with the ESC-9E Hot Rolled Interlock. All HRZ Profiles can interlock with each other.

Delivery Options - Supplied in singles or paired. Pairs either loose, welded or crimped. Can be supplied with Lifting Hole. Shipping by container (38.7ft or less) or Break Bulk. Corrosion Protection Coatings are an option.

Steel Grades - S355GP, S390GP, S430GP, ASTM A572 Gr50 & Gr60

Length - 19.7ft to 101.7ft. Can be spliced to greater lengths. Can also be produced to project specific lengths.

*excludes internal section of interlock

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Revision 6, Q3 2019

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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	Code	Grade	Minimum Yield Strength (MPa)	Ultimate Tensile Strength (MPa)	Minimum Elongation (%)
USA	ASTM A252	Grade 1	205	345	18
	ASTM A252	Grade 2	240	415	14
	ASTM A252	Grade 3	310	455	-
	ASTM A572	Grade 42	290	415	20
	ASTM A572	Grade 50	345	450	18
	ASTM A572	Grade 55	380	485	17
	ASTM A572	Grade 60	415	520	16
Canada	CSA 40.21	260W	260	590	20
	CSA 40.21	300W	300	620	20
	CSA 40.21	350W	350	650	19
	CSA 40.21	400W	400	690	16

Region	Code	Grade	Minimum Yield Strength (MPa)	Ultimate Tensile Strength (MPa)	Minimum Elongation (%)
Europe	EN 10248	S240GP	240	340	26
	EN 10248	S270GP	270	410	24
	EN 10248	S320GP	320	440	23
	EN 10248	S355GP	355	480	22
	EN 10248	S430GP	430	490	20
China	GB/T 700	Q235B	235	500	26
	GB/T 1591	Q345B	345	630	20
	GB/T 1591	Q345C	345	630	21
	GB/T 1591	Q390B	390	650	20
Japan	JIS A5528	SY295	295	490	17
	JIS A5528	SY390	390	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	± 200mm	± 200mm	± 200mm	± 200mm
Height (≤ 200mm)	± 5.0mm	± 4.0mm	± 4.0mm	N/A
Height (> 200mm & ≤ 300mm)	± 6.0mm	± 5.0mm	± 4.0mm	N/A
Height (> 300mm)	± 7.0mm	± 5.0mm	± 4.0mm	N/A
Thickness (≤ 8.5 mm)	± 0.5 mm	± 0.5 mm	± 0.5 mm	± 0.5 mm
Thickness (> 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

