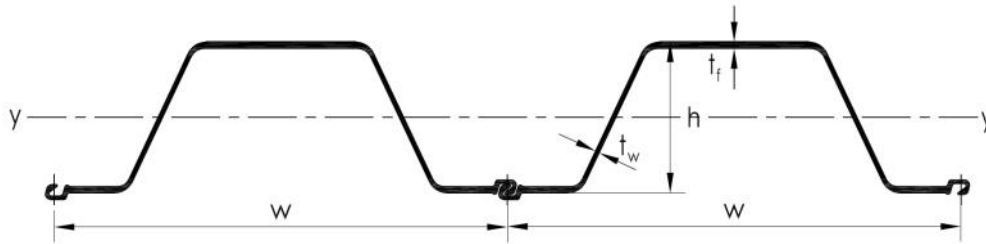


NS-SP SERIES

The NS-SP series is a hot rolled sheet pile profile. It offers interlocked clutches on one side and features a wide profile of 900mm width. Interlocking clutches are located at the outer fibre. This results in an optimized section profile for high strength and low material weight. The profile features a high moment of inertia reducing deflection meeting serviceability requirements. The wider profile width for a hot rolled sheet pile reduces handling and installation time with normal driving equipment. The wider profile also reduces the number of interlocks required for a set wall run length, improving water-tightness capabilities.

INTERLOCKING CLUTCH



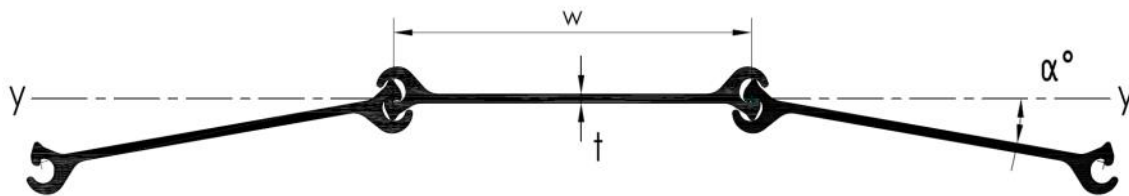
Section	Width (w)	Height (h)	Thickness		Cross Sectional Area	Weight		Elastic Section Modulus	Moment of Inertia
	in mm	in mm	Flange (t _f) in mm	Web (t _w) in mm		Per Pile kg/ft kg/m	Per Wall kg/ft ² kg/m ²		
NS-SP-10H	35.43	9.06	0.43	-	5.77	58.06	19.66	16.78	76.65
	900	230	10.8	-	122.2	86.4	96	902	10,500
NS-SP-25H	35.43	11.81	0.52	-	7.57	75.94	25.80	29.95	178.12
	900	300	13.2	-	160.4	113	126	1,610	24,400
NS-SP-45H	35.43	14.49	0.59	-	9.81	98.78	33.38	45.57	328.50
	900	368	15	-	207.8	147	163	2,450	45,000
NS-SP-50H	35.43	14.57	0.67	-	11.15	112.22	38.09	51.34	373.03
	900	370	17	-	236.3	167	186	2,760	51,100

ORDER OPTIONS

- Steel Grades ✓ SYW295, SYW390, SYW430 (on request)
- Length 98.0ft maximum
- Delivery Options ✓ Lifting Hole
- ✓ By container (38.7ft or less) or Break Bulk
- ✓ Corrosion Protection Coatings

FL SERIES

The FL series is a hot rolled straight web sheet pile profile. It features high interlocking clutch strength. It is ideal for circular structures and coffering. The FL Series Sheet Piles can be preassembled as one large cellular unit and dropped in a submerged location, where they can be driven in sequence.



Section	Width (w)	Height (h)	Thickness (t)	Cross Sectional Area	Weight		Elastic Section Modulus	Moment of Inertia	Coating Area (both side per pile)
	in mm	in mm	in mm		in mm	Per Pile in ² /ft cm ² /m			
FL1	19.69	1.77	0.37	7.42	41.46	25.27	1.66	2.89	4.56
	500	45	9.5	157.2	61.7	123.4	89	396	1.39
FL2	19.69	1.85	0.50	9.28	51.88	31.62	2.25	4.16	4.63
	500	47	12.7	196.7	77.2	154.4	121	570	1.41

ORDER OPTIONS

- Steel Grades ✓ SYW295, SYW390, SYW430
- ✓ SY295, SY390
- ✓ S355GP, S430GP
- ✓ A572Gr50
- Length 124.6ft maximum
- Delivery Options ✓ By container (38.7ft or less) or Break Bulk

STEEL GRADES & MANUFACTURING TOLERANCES

HOT ROLLED SHEET PILES

STEEL GRADES

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

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	%
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

