

Corus Construction & Industrial

Frodingham and Larssen sheet piling - imperial units



Frodingham piles summary table

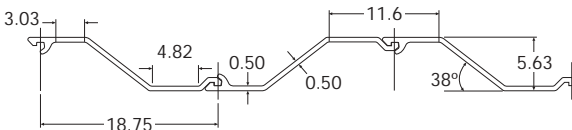
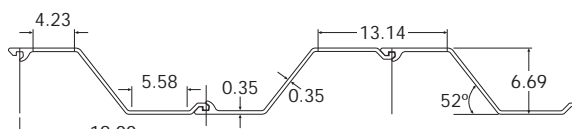
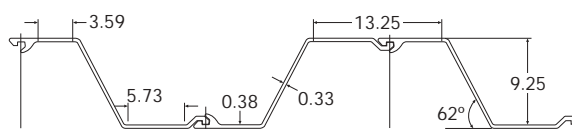
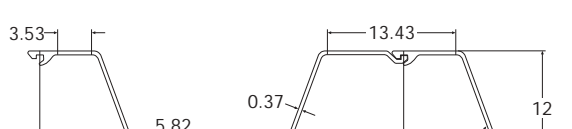
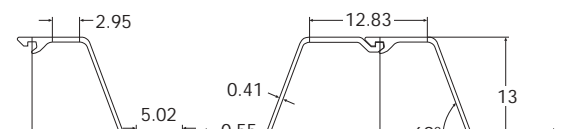
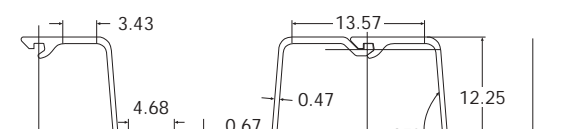
section	width of one pile	thickness of the pan	mass	elastic section modulus	plastic section modulus
	ins	ins	lbs/ft ²	ins ³ /ft	ins ³ /ft
1 BXN	18.75	0.50	27.26	12.88	15.98
1N	19.00	0.35	20.35	13.29	15.46
2N	19.00	0.38	23.27	21.60	24.80
3NA	19.00	0.38	26.61	31.38	36.02
4N	19.00	0.55	35.10	44.92	51.84
5	16.75	0.67	48.63	58.98	68.51

LX and Larssen piles summary table

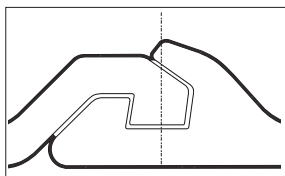
section	width of one pile	thickness of the pan	mass	elastic section modulus	plastic section modulus
	ins	ins	lbs/ft ²	ins ³ /ft	ins ³ /ft
LX8	23.62	0.32	18.62	15.44	18.91
LX12	23.62	0.38	21.79	22.47	25.69
LX12d	23.62	0.39	22.28	23.06	26.36
LX12d10	23.62	0.39	24.85	23.84	27.78
LX16	23.62	0.41	25.28	30.53	35.32
LX20	23.62	0.49	28.37	37.62	43.83
LX20d	23.62	0.44	28.76	37.36	44.28
LX25	23.62	0.53	32.40	46.63	54.21
LX25d	23.62	0.59	34.09	47.32	55.50
LX32	23.62	0.75	39.01	59.68	68.88
LX32d	23.62	0.85	43.14	62.27	72.91
LX38	23.62	0.89	47.90	70.77	82.96
6W	20.67	0.31	17.48	11.42	13.23
20Wd	20.67	0.44	31.45	37.73	44.18
6-42	19.69	0.81	54.41	78.33	91.75
6(122)	16.54	0.87	59.66	77.88	92.93
6(131)	16.54	1.00	63.65	85.90	101.95
6(138)	16.54	1.13	67.36	93.09	110.19

In addition to the sections listed above, Corus can produce a range of rolled corner sections and fabricated corner and junction piles, tailored to project requirements. Full details available on request.

Frodingham piles

section	dimensions	sectional area	mass	mass	combined moment of inertia	elastic section modulus	plastic section modulus	coating area* per pile	coating area* per m wall
	ins	ins ² /ft	lbs/ft	lbs/ft ²	ins ⁴ /ft	ins ³ /ft	ins ³ /ft	ft ² /ft	ft ² /ft ²
1BXN		8.01	42.59	27.26	36.22	12.88	15.98	3.82	2.44
1N		5.98	32.22	20.35	44.46	13.29	15.46	4.01	2.53
2N		6.84	36.84	23.27	99.89	21.60	24.80	4.41	2.78
3NA		7.82	42.14	26.61	188.27	31.38	36.02	4.85	3.06
4N		10.31	55.57	35.10	291.96	44.92	51.84	5.00	3.16
5		14.29	67.88	48.63	361.23	58.98	68.51	4.96	3.56

Frodingham piles may be available rolled up or down on request.



* The coating area excludes the inside of the interlock as shown on the adjacent drawing.

LX and Larssen piles

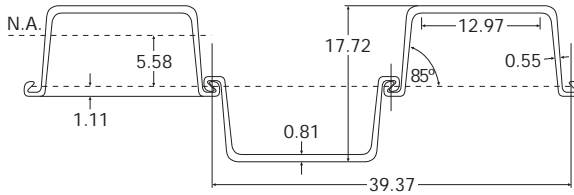
section	dimensions		sectional area	mass	combined moment of inertia	elastic section modulus	plastic section modulus	coating area*
	ins		ins ²	lbs/ft	ins ⁴	ins ³	ins ³	ft ² /ft
LX8		per ft of wall per single pile	5.48 10.78	18.62 36.66	94.19 65.9	15.44 16.04	18.91	2.54 4.99
LX12		per ft of wall per single pile	6.41 12.61	21.79 42.89	137.14 77.74	22.47 16.60	25.69	2.72 5.35
LX12d		per ft of wall per single pile	6.55 12.9	22.28 43.85	140.73 79.24	23.06 16.83	26.36	2.72 5.36
LX12d10		per ft of wall per single pile	7.31 14.39	24.85 48.91	145.48 94.63	23.84 20.89	27.78	2.74 5.4
LX16		per ft of wall per single pile	7.43 14.63	25.28 49.75	228.35 134.87	30.53 24.64	35.32	2.91 5.73
LX20		per ft of wall per single pile	8.34 16.42	28.37 55.84	318.43 195.71	37.62 32.42	43.83	3.00 5.91
LX20d		per ft of wall per single pile	8.46 16.65	28.76 56.6	330.97 220.4	37.36 36.67	44.28	3.07 6.04

LX and Larssen piles

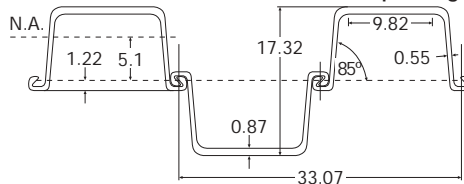
section	dimensions	sectional area	mass	combined moment of inertia	elastic section modulus	plastic section modulus	coating area*
	ins	ins ²	lbs/ft	ins ⁴	ins ³	ins ³	ft ² /ft
LX25	per ft of wall per single pile	9.53 18.76	32.4 63.78	422.21 251.63	46.63 38.77	54.21	3.15 6.21
LX25d	per ft of wall per single pile	10.03 19.74	34.09 67.11	419.21 245.79	47.32 38.79	55.50	3.05 6.01
LX32	per ft of wall per single pile	11.47 22.58	39.01 76.78	540.44 278.73	59.68 40.79	68.88	3.11 6.12
LX32d	per ft of wall per single pile	12.69 24.98	43.14 84.92	551.59 291.93	62.27 44.35	72.91	3.03 5.97
LX38	per ft of wall per single pile	14.09 27.73	47.9 94.28	640.83 337.79	70.77 49.64	82.96	3.11 6.13
6W	per ft of wall per single pile	5.14 8.85	17.48 30.11	47.66 30.08	11.42 9.36	13.23	2.54 4.38
20Wd	per ft of wall per single pile	9.25 15.93	31.45 54.18	297.12 169.43	37.73 30.46	44.18	3.26 5.61

LX and Larssen piles

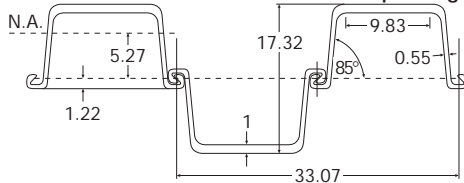
section	dimensions	sectional area	mass	combined moment of inertia	elastic section modulus	plastic section modulus	coating area*
	ins	ins ²	lbs/ft	ins ⁴	ins ³	ins ³	ft ² /ft
L6-42	per ft of wall per single pile	16.01 26.26	54.41 89.27	693.88 321.76	78.33 48.13	91.75	3.64 5.98



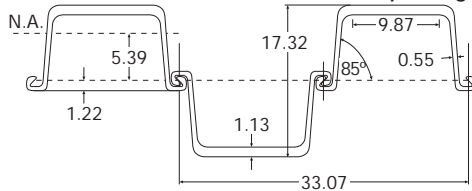
6 (122)	per ft of wall per single pile	17.55 24.18	59.66 82.23	674.54 301.09	77.88 47.65	92.93	3.92 5.4
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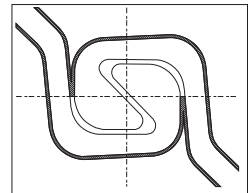
6 (131)	per ft of wall per single pile	18.73 25.8	63.65 87.73	743.99 311.3	85.9 48.04	101.95	3.90 5.38
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6 (138.7)	per ft of wall per single pile	19.82 27.3	67.36 92.84	806.31 318.83	93.09 48.26	110.19	3.89 5.36
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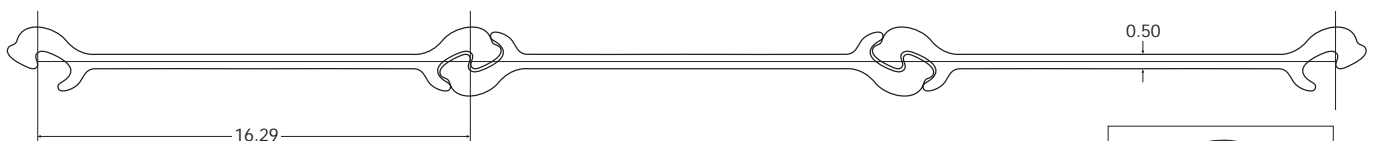
* The coating area excludes the inside of the interlock as shown on the adjacent drawing.



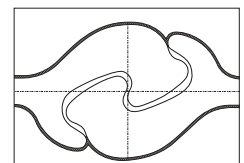
Straight Web SW1A

B nominal	t	area single pile	mass per ft of pile	mass per ft ² of pile	mass per ft of junction	ultimate interlock strength			coating area per single pile**	coating area per metre of wall**	max deviation angle
						S270GP	S355GP	ASTM A328			
ins	ins	ins ²	lb/ft	lb/ft ²	lb/ft	KIPS/inch	KIPS/inch	KIPS/inch	ft ² /ft	ft ² /ft ²	degrees

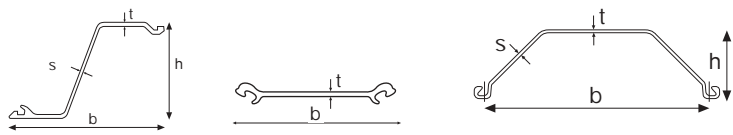
16.29	0.50	12.53	42.65	31.42	63.98	16.0	21.5	16.7	3.27	2.41	6
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** The coating area excludes the inside of the interlock as shown on the adjacent drawing.



Tolerances for piles



section	width		thickness		weight	length	squareness of cut % of width	straightness	depth (h)		
	single pile	interlocked piles	≤ 0.335 in	> 0.335 in					h ≤ 8 in	8 in < h < 11.8 in	h ≥ 11.8 in
Frodingham & SW1A	± 2% b	± 3% (2b)	(s or t) ± 0.02 in	(s or t) ± 6%	± 5%	± 8 in	≤ 2%	≤ 0.2% of length	± 0.20 in	± 0.24 in	± 0.28 in
LX & Larssen	± 2% b	± 3% (2b)	t ± 0.02 in s - 0.02 in	± 6% t - 6% s	± 5%	± 8 in	≤ 2%	≤ 0.2% of length	± 0.16 in	± 0.2 in	

Squareness of cut tolerance applies in both the x-x and y-y axes.

Steel qualities

ASTM Specification

specification	minimum yield strength**		minimum tensile strength**		elongation on a gauge length of L _o = 8 inches A%
	ksi	N/mm ²	ksi	N/mm ²	
A328	39	270	70	485	17
A572: Grade 50	50	345	65	450	18

Marine grades are also available on request.

ASTM A572 55 and 60 ksi equivalent steel grades may be available on request.

European Specification

designation EN 10027		classification EN 10020	minimum yield strength**		minimum tensile strength**		elongation on a gauge length of L _o = 5.65 √S _o A%
steel name	steel number		ksi	N/mm ²	ksi	N/mm ²	
EN 10248 S270GP	1.0023	Base Steel	39	270	59	410	24
EN10248 S355GP	1.0083	Base Steel	51	355	69	480	22

S390GP or S430GP equivalent steel grades may be available on request.

** The values in the table apply to longitudinal test pieces for the tensile test.

Interlocking options for LX and Larssen piles

	LX8	LX12	LX16	LX20	LX25	LX32	LX38	6W	20Wd	6-42	6
LX8			
LX12 ⁺			
LX16
LX20 ⁺		
LX25 ⁺		
LX32 ⁺		
LX38		
6W			
20Wd		
6-42			
6			

⁺Interlocking capability also applies to d versions of these sections.

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