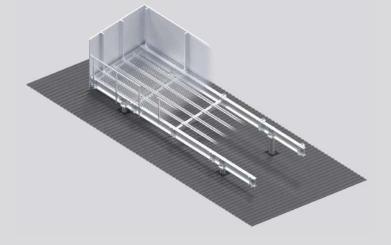
PRODUCT SPECIFICATION SHEET



XBEAM

Aluminium Structural Beam Platform System



PRODUCT DESCRIPTION

Monkeytoe Xbeam system is a revolutionary lightweight configurable beam system that is part of the Modular Xbeam platform system.

TYPICAL USES / APPLICATIONS

- Rooftop mounting of large airconditioning, refrigeration and ventilation plants.
- Bridges
- Long span external access and mounting systems
- Internal raised access systems where minimal support points are available.
- · Any structure where weight is an issue

CHARACTERISTICS / ADVANTAGES (BEAM)

- Lightweight Up to 65% lighter than steel equivalent; less loading on supporting structure
- No surface coating requirements for corrosion protection
- Low deflection for superior acoustic performance

CHARACTERISTICS / ADVANTAGES (PLATFORM)

- Substantial reduction in height work by enabling the platform to be assembled offsite, or at ground level then lifted to the roof fully assembled or in completed sections.
- Reduce risk of damage to the roof by assembling the platform at ground level.
- Less load on the building structure. 65% lighter than a steel equivalent.
- A complete platform system. Compatible with all Monkeytoe handrails, louvre and hushmonkey acoustic screening systems
- Pre-engineered and highly configurable, which enables Last minute configuration tweaks without extensive workshop drawing updates.
- Manufactured under a ISO quality management system

TECHNICAL DATA / MATERIALS

- High tensile T6 Aluminium
- Carbon fibre pultrusion's manufactured in NZ
- Fixings Dacromet, Zinc based coated Fixings. Coating exceeds durability of hot dip galvanizing and designed for Aluminium connections

TESTS

APPROVALS / STANDARDS

- Fully documented third party testing to ensure compliance to the building code. These included deflection, horizontal, load and temperature and durability
- ABCB NCC 2019
- AS 1657
- AS/NZS 11170.0 General Principles
- AS/NZS 1170.1 Permanent , Imposed and other actions
- AS/NZS 1170.2 Wind Actions
- AS/NZS 1170.4 Earthquake actions in Australia

WARRANTY

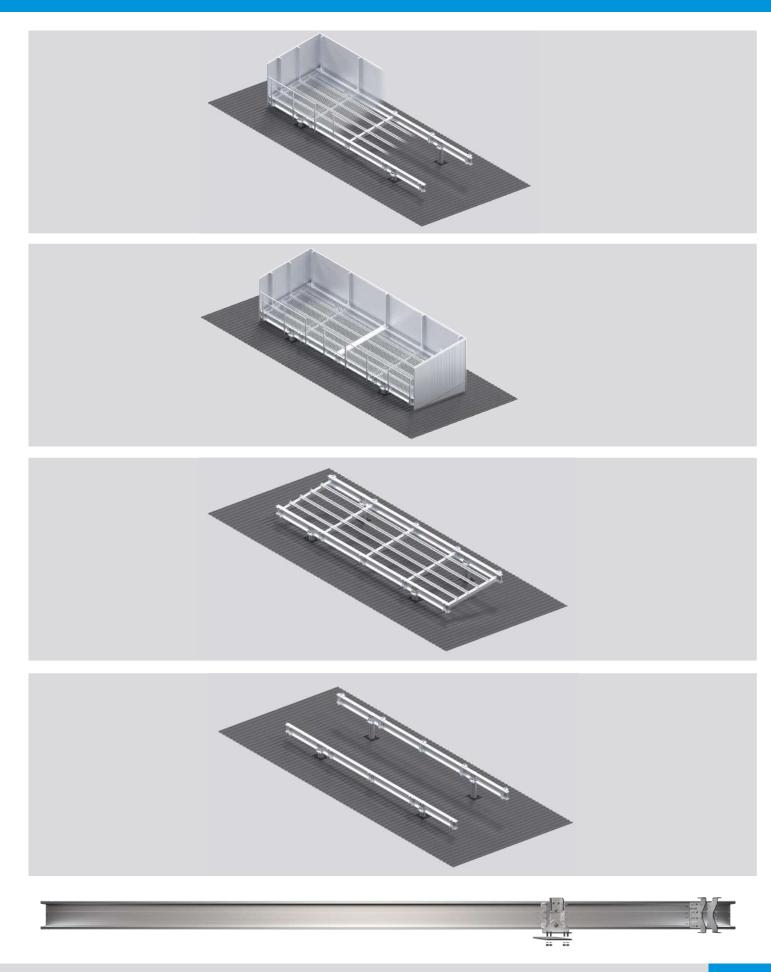
• 25 years and 2 years install

MAINTENANCE

• It is recommended that all plant platforms and access systems are included in the standard warrant of fitness. All damage of loose fixings are to be reported to the building manager.



PRODUCT SPECIFICATION SHEET



PRODUCT SPECIFICATION SHEET



PRODUCT IMAGES

















UNIFORMLY DISTRIBUTED DESIGN LOAD CAPACITY (KN/M) WITH SIMPLY SUPPORTED CONDITIONS + FULL LATERAL RESTRAINT.

0.5 - 7.5m spans

	tentes							Spar	in metr	es (m)						
Member	kg/m	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5
XB250.000	11.21	279	139	93.20	69.90	55.90	44.00	32.30	24.70	19.50	15.70	13.00	10.90	9.29	8.00	6.95
XB250.025	12.17	279	139	93.20	69.90	55.90	46.60	39.90	34.90	29.80	24.10	19.90	16.70	14.20	12.20	10.60
XB250.050	13.13	279	139	93.20	69.90	55.90	46.60	39.90	34.90	31.00	27.90	25.30	22.10	18.80	16.20	14.10
XB250.075	14.09	279	139	93.20	69.90	55.90	46.50	39.90	34.90	31.00	27.90	25.30	23.20	21.40	19.80	17.20
XB250.100	15.05	279	139	93.20	69.90	55.90	46.50	39.90	34.90	31.00	27.90	25.30	23.20	21.40	19.90	18.50
XB250.125	16.01	279	139	93.20	69.90	55.90	46.50	39.90	34.90	31.00	27.90	25.30	23.20	21.40	19.90	18.50
XB250.150	16.97	279	139	93.20	69.90	55.90	46.50	39.90	34.90	31.00	27.90	25.30	23.20	21.40	19.90	18.50
XB400.000	15.28	479	239	159	119	95.90	79.90	62.80	48.10	37.90	30.70	25.30	21.30	18.10	15.60	13.50
XB400.025	16.24	479	239	159	119	95.90	79.90	68.40	59.90	53.20	43.90	36.20	30.40	25.90	22.30	19.40
XB400.050	17.20	479	239	159	119	95.90	79.90	68.40	59.90	53.20	47.90	43.50	39.00	33.20	28.60	24.90
XB400.075	18.16	479	239	159	119	95.90	79.90	68.40	59.90	53.20	47.90	43.50	39.90	36.80	34.10	30.10
XB400.100	19.12	479	239	159	119	95.90	79.90	68.40	59.90	53.20	47.90	43.50	39.90	36.80	34.10	31.90
XB400.125	20.08	479	239	159	119	95.90	79.90	68.40	59.90	53.20	47.90	43.50	39.90	36.80	34.10	31.90
XB400.150	21.04	479	239	159	119	95.80	79.80	68.40	59.80	53.20	47.80	43.50	39.80	36.80	34.10	31.80
XB550.000	19.35	719	359	239	179	143	119	102	79.89	63.09	51.06	42.17	35.40	30.14	25.96	22.59
XB550.025	20.31	719	359	239	179	143	119	102	89.90	79.90	68.92	56.92	47.80	40.70	35.06	30.52
XB550.050	21.27	719	359	239	179	143	119	102	89.80	79.80	71.80	65.30	59.54	50.70	43.69	38.03
XB550.075	22.23	719	359	239	179	143	119	102	89.80	79.80	71.80	65.30	59.80	55.20	51.30	45.16
XB550.100	23.19	719	359	239	179	143	119	102	89.80	79.80	71.80	65.30	59.80	55.20	51.30	47.80
XB550.125	24.15	719	359	239	179	143	119	102	89.80	79.80	71.80	65.30	59.80	55.20	51.30	47.80
XB550.150	25.11	719	359	239	179	143	119	102	89.80	79.80	71.80	65.30	59.80	55.20	51.30	47.80

^{*}Bold line indicates difference between shear and bending failure mode.

8.0 - 15.0m spans

Member	kg/m							Span	in metre	es (m)						
Welliber	Kg/III	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
XB250.000	11.21	6.10	5.39	4.79	4.29	3.86	3.49	3.17	2.89	2.65	2.43	2.24	2.07	1.91	1.78	1.65
XB250.025	12.17	9.37	8.29	7.38	6.61	5.95	5.39	4.90	4.47	4.10	3.77	3.47	3.21	2.98	2.77	2.58
XB250.050	13.13	12.30	10.90	9.76	8.75	7.88	7.14	6.49	5.93	5.43	5.00	4.61	4.26	3.96	3.68	3.43
XB250.075	14.09	15.10	13.40	11.90	10.70	9.66	8.75	7.96	7.27	6.67	6.13	5.66	5.24	4.86	4.52	4.22
XB250.100	15.05	17.40	15.70	13.90	12.50	11.30	10.20	9.32	8.51	7.80	7.18	6.63	6.13	5.69	5.30	4.94
XB250.125	16.01	17.40	16.30	15.40	14.20	12.80	11.60	10.50	9.65	8.85	8.14	7.52	6.96	6.46	6.01	5.61
XB250.150	16.97	17.40	16.30	15.40	14.60	13.90	12.80	11.70	10.70	9.81	9.03	8.33	7.72	7.16	6.67	6.22
XB400.000	15.28	11.90	10.50	9.38	8.40	7.57	6.85	6.23	5.68	5.21	4.79	4.41	4.08	3.78	3.52	3.28
XB400.025	16.24	17.00	15.10	13.40	12.00	10.80	9.84	8.95	8.17	7.49	6.89	6.36	5.89	5.46	5.08	4.74
XB400.050	17.20	21.90	19.30	17.20	15.40	13.90	12.60	11.50	10.50	9.64	8.87	8.19	7.58	7.04	6.55	6.11
XB400.075	18.16	26.40	23.40	20.80	18.70	16.80	15.20	13.90	12.70	11.60	10.70	9.90	9.17	8.51	7.93	7.39
XB400.100	19.12	29.90	27.20	24.20	21.70	19.60	17.70	16.10	14.70	13.50	12.40	11.50	10.60	9.91	9.22	8.61
XB400.125	20.08	29.90	28.10	26.50	24.60	22.10	20.10	18.20	16.70	15.30	14.10	13.00	12.00	11.20	10.40	9.74
XB400.150	21.04	29.80	28.10	26.50	25.10	23.80	22.20	20.20	18.50	17.00	15.60	14.40	13.40	12.40	11.50	10.80
XB550.000	19.35	19.83	17.54	15.63	14.01	12.62	11.43	10.40	9.50	8.71	8.01	7.39	6.84	6.35	5.90	5.50
XB550.025	20.31	26.80	23.72	21.13	18.95	17.08	15.47	14.08	12.87	11.80	10.86	10.03	9.28	8.62	8.02	7.48
XB550.050	21.27	33.40	29.56	26.35	23.62	21.30	19.30	17.57	16.06	14.73	13.56	12.52	11.59	10.77	10.02	9.35
XB550.075	22.23	39.66	35.11	31.29	28.06	25.31	22.93	20.88	19.08	17.51	16.12	14.89	13.79	12.80	11.92	11.13
XB550.100	23.19	44.80	40.38	35.99	32.28	29.11	26.38	24.02	21.95	20.14	18.55	17.13	15.87	14.74	13.73	12.81
XB550.125	24.15	44.80	42.20	39.80	36.28	32.72	29.65	27.00	24.68	22.65	20.85	19.26	17.84	16.58	15.44	14.41
XB550.150	25.11	44.80	42.20	39.80	37.70	35.80	32.76	29.82	27.27	25.02	23.04	21.28	19.72	18.32	17.06	15.93

^{*}Bold line indicates difference between shear and bending failure mode.

UNIFORMLY DISTRIBUTED DESIGN LOAD CAPACITY(KN/M) FOR L/250 DEFLECTION. SIMPLY SUPPORTED CONDITIONS + FULL LATERAL RESTRAINT.

2.5 - 8.5m spans

	(* 25) * 445						Spar	in metre	s (m)					
Member	kg/m	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
XB250.000	11.21	41.7	24.1	15.2	10.2	7.15	5.21	3.91	3.02	2.37	1.90	1.54	1.27	1.06
XB250.025	12.17		37.8	23.8	15.9	11.2	8.16	6.13	4.72	3.71	2.97	2.42	1.99	1.66
XB250.050	13.13	÷		32.1	21.5	15.1	11.0	8.27	6.37	5.01	4.01	3.26	2.69	2.24
XB250.075	14.09				26.8	18.8	13.7	10.3	7.95	6.25	5.01	4.07	3.35	2.80
XB250.100	15.05				31.9	22.4	16.3	12.3	9.46	7.44	5.96	4.84	3.99	3.33
XB250.125	16.01					25.9	18.8	14.2	10.9	8.58	6.87	5.59	4.60	3.84
XB250.150	16.97					29.1	21.2	16.0	12.3	9.66	7.74	6.29	5.18	4.32
XB400.000	15.28		78.5	49.4	33.1	23.3	17.0	12.7	9.81	7.72	6.18	5.02	4.14	3.45
XB400.025	16.24				48.5	34.0	24.8	18.6	14.4	11.3	9.05	7.35	6.06	5.05
XB400.050	17.20				·	44.5	32.4	24.4	18.8	14.8	11.8	9.61	7.92	6.60
XB400.075	18.16						39.8	29.9	23.0	18.1	14.5	11.80	9.72	8.10
XB400.100	19.12						46.9	35.3	27.2	21.4	17.1	13.91	11.46	9.55
XB400.125	20.08							40.6	31.3	24.6	19.7	16.02	13.20	11.00
XB400.150	21.04								35.3	27.7	22.2	18.06	14.88	12.41
XB550.000	19.35				75.8	53.3	38.8	29.2	22.5	17.7	14.2	11.51	9.48	7.90
XB550.025	20.31					73.8	53.8	40.4	31.1	24.5	19.6	15.95	13.14	10.95
XB550.050	21.27						68.6	51.5	39.7	31.2	.25.0	20.32	16.74	13.96
XB550.075	22.23							62.2	47.9	37.7	30.2	24.54	20.22	16.86
XB550.100	23.19								56.2	44.2	35.4	28.76	23.70	19.76
XB550.125	24.15									50.4	40.4	32.84	27.06	22.56
XB550.150	25.11										45.4	36.92	30.42	25.36

^{*}Values under bold line do not reach deflection limit prior to shear/bending failure.

9.0 - 15.0m spans

							Spai	n in metres	s (m)					
Member	kg/m	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
XB250.000	11.21	0.89	0.76	0.65	0.56	0.49	0.43	0.38	0.33	0.30	0.26	0.24	0.21	0.19
XB250.025	12.17	1.40	1.19	1.02	0.88	0.77	0.67	0.59	0.52	0.46	0.41	0.37	0.33	0.30
XB250.050	13.13	1.89	1.61	1.38	1.19	1.03	0.90	0.80	0.70	0.63	0.56	0.50	0.45	0.41
XB250.075	14.09	2.36	2.00	1.72	1.48	1.29	1.13	0.99	0.88	0.78	0.70	0.63	0.56	0.51
XB250.100	15.05	2.80	2.38	2.04	1.76	1.53	1.34	1.18	1.05	0.93	0.83	0.74	0.67	0.61
XB250.125	16.01	3.23	2.75	2.36	2.04	1.77	1.55	1.36	1.21	1.07	0.96	0.86	0.77	0.70
XB250.150	16.97	3.64	3.10	2.65	2.29	1.99	1.75	1.54	1.36	1.21	1.08	0.97	0.87	0.79
XB400.000	15.28	2.91	2.47	2.12	1.83	1.59	1.39	1.23	1.09	0.96	0.86	0.77	0.70	0.63
XB400.025	16.24	4.26	3.62	3.10	2.68	2.33	2.04	1.80	1.59	1.41	1.26	1.13	1.02	0.92
XB400.050	17.20	5.56	4.73	4.06	3.50	3.05	2.67	2.35	2.08	1.85	1.65	1.48	1.33	1.20
XB400.075	18.16	6.83	5.80	4.98	4.30	3.74	3.27	2.88	2.55	2.27	2.02	1.81	1.63	1.47
XB400.100	19.12	8.05	6.84	5.87	5.07	4.41	3.86	3.40	3.00	2.67	2.38	2.14	1.92	1.74
XB400.125	20.08	9.27	7.88	6.76	5.84	5.08	4.44	3.91	3.46	3.08	2.75	2.46	2.22	2.00
XB400.150	21.04	10.45	8.89	7.62	6.58	5.72	5.01	4.41	3.90	3.47	3.10	2.78	2.50	2.26
XB550.000	19.35	6.66	5.66	4.85	4.19	3.65	3.19	2.81	2.49	2.21	1.97	1.77	1.59	1.44
XB550.025	20.31	9.23	7.85	6.73	5.81	5.05	4.42	3.89	3.44	3.06	2.73	2.45	2.21	1.99
XB550.050	21.27	11.76	10.00	8.57	7.40	6.44	5.64	4.96	4.39	3.90	3.48	3.12	2.81	2.54
XB550.075	22.23	14.20	12.07	10.35	8.94	7.78	6.81	5.99	5.30	4.71	4.21	3.77	3.40	3.07
XB550.100	23.19	16.65	14.15	12.13	10.48	9.12	7.98	7.02	6.21	5.52	4.93	4.42	3.98	3.60
XB550.125	24.15	19.01	16.16	13.85	11.97	10.41	9.11	8.02	7.09	6.31	5.63	5.05	4.54	4.11
XB550.150	25.11	21.36	18.17	15.58	13.45	11.70	10.24	9.01	7.97	7.09	6.33	5.68	5.11	4.61

^{*}Values under bold line do not reach deflection limit prior to shear/bending failure.

UNIFORMLY DISTRIBUTED DESIGN LOAD CAPACITY(KN/M) FOR L/300 DEFLECTION. SIMPLY SUPPORTED CONDITIONS + FULL LATERAL RESTRAINT.

2.5 - 8.5m spans

							Spar	in metre	s (m)					
Member	kg/m	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
XB250.000	11.21	34.7	20.1	12.7	8.48	5.96	4.34	3.26	2.51	1.98	1.58	1.29	1.06	0.884
XB250.025	12.17	54.4	31.5	19.8	13.3	9.33	6.80	5.11	3.93	3.09	2.48	2.01	1.66	1.38
XB250.050	13.13		42.5	26.7	17.9	12.6	9.18	6.89	5.31	4.18	3.34	2.72	2.24	1.87
XB250.075	14.09	1		33.4	22.4	15.7	11.4	8.60	6.63	5.21	4.17	3.39	2.80	2.33
XB250.100	15.05			39.7	26.6	18.7	13.6	10.2	7.88	6.20	4.96	4.04	3.33	2.77
XB250.125	16.01				30.7	21.5	15.7	11.8	9.09	7.15	5.72	4.65	3.84	3.20
XB250.150	16.97				34.6	24.3	17.7	13.3	10.2	8.05	6.45	5.24	4.32	3.60
XB400.000	15.28		65.4	41.2	27.6	19.4	14.1	10.6	8.18	6.43	5.15	4.19	3.45	2.88
XB400.025	16.24			60.3	40.4	28.4	20.7	15.5	12.0	9.42	7.54	6.13	5.05	4.21
XB400.050	17.20				52.8	37.1	27.0	20.3	15.6	12.3	9.85	8.01	6.60	5.50
XB400.075	18.16					45.5	33.2	24.9	19.2	15.1	12.1	9.83	8.10	6.75
XB400.100	19.12						39.1	29.4	22.6	17.8	14.3	11.6	9.55	7.96
XB400.125	20.08						45.1	33.9	26.1	20.5	16.4	13.3	11.0	9.17
XB400.150	21.04							38.2	29.4	23.1	18.5	15.0	12.4	10.3
XB550.000	19.35			94.3	63.2	44.4	32.4	24.3	18.7	14.7	11.8	9.59	7.90	6.59
XB550.025	20.31				87.6	61.5	44.9	33.7	26.0	20.4	16.3	13.3	11.0	9.13
XB550.050	21.27					78.4	57.1	42.9	33.1	26.0	20.8	16.9	14.0	11.6
XB550.075	22.23						69.0	51.9	39.9	31.4	25.2	20.4	16.9	14.0
XB550.100	23.19							60.8	46.8	36.8	29.5	24.0	19.8	16.5
XB550.125	24.15								53.5	42.0	33.7	27.4	22.6	18.8
XB550.150	25.11									47.3	37.8	30.8	25.4	21.1

^{*}Values under bold line do not reach deflection limit prior to shear/bending failure.

9.0 - 15.0m spans

							Spa	n in metres	s (m)					
Member	kg/m	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
XB250.000	11.21	0.744	0.633	1.543	0.469	0.408	0.357	0.314	0.278	0.247	0.221	0.198	0.178	0.161
XB250.025	12.17	1.17	0.991	0.850	0.734	0.639	0.559	0.492	0.435	2.387	0.345	0.310	0.279	0.252
XB250.050	13.13	1.57	1.34	1.15	0.991	0.862	0.754	0.664	0.587	0.522	0.466	0.418	0.376	0.340
XB250.075	14.09	1.96	1.67	1.43	1.24	1.08	0.941	0.828	0.733	0.654	0.582	0.522	0.469	0.424
XB250.100	15.05	2.34	1.99	1.70	1.47	1.28	1.12	0.985	0.872	0.775	0.692	0.620	0.558	0.504
XB250.125	16.01	2.69	2.29	1.96	1.70	1.48	1.29	1.14	1.01	0.894	0.798	0.716	0.644	0.582
XB250.150	16.97	3.03	2.58	2.21	1.91	1.66	1.45	1.28	1.13	1.01	0.899	0.806	0.726	0.655
XB400.000	15.28	2.42	2.06	1.77	1.53	1.33	1.16	1.02	0.904	0.804	0.718	0.644	0.579	0.523
XB400.025	16.24	3.55	3.02	2.59	2.23	1.94	1.70	1.50	1.32	1.18	1.05	0.942	0.848	0.766
XB400.050	17.20	4.64	3.94	3.38	2.92	2.54	2.22	1.96	1.73	1.54	1.37	1.23	1.11	1.00
XB400.075	18.16	5.69	4.84	4.15	3.58	3.12	2.73	2.40	2.12	1.89	1.69	1.51	1.36	1.23
XB400.100	19.12	6.71	5.70	4.89	4.22	3.67	3.21	2.83	2.50	2.23	1.99	1.78	1.60	1.45
XB400.125	20.08	7.73	6.57	5.63	4.87	4.23	3.70	3.26	2.88	2.56	2.29	2.05	1.85	1.67
XB400.150	21.04	8.71	7.40	6.35	5.48	4.77	4.17	3.67	3.25	2.89	2.58	2.31	2.08	1.88
XB550.000	19.35	5.55	4.72	4.04	3.49	3.04	2.66	2.34	2.07	1.84	1.64	1.47	1.33	1.20
XB550.025	20.31	7.69	6.54	5.61	4.84	4.21	3.69	3.24	2.87	2.55	2.28	2.04	1.84	1.66
XB550.050	21.27	9.80	8.33	7.14	6.17	5.37	4.70	4.13	3.66	3.25	2.90	2.60	2.34	2.12
XB550.075	22.23	11.8	10.1	8.63	7.45	6.48	5.67	4.99	4.42	3.93	3.51	3.14	2.83	2.56
XB550.100	23.19	13.9	11.8	10.1	8.74	7.60	6.65	5.85	5.18	4.60	4.11	3.69	3.32	3.00
XB550.125	24.15	15.8	13.5	11.5	9.97	8.67	7.59	6.68	5.91	5.26	4.69	4.21	3.79	3.42
XB550.150	25.11	17.8	15.1	13.0	11.2	9.75	8.53	7.51	6.65	5.91	5.28	4.73	4.26	3.85

^{*}Values under bold line do not reach deflection limit prior to shear/bending failure.

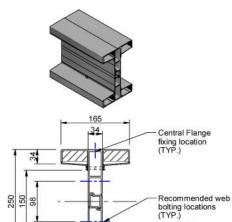
DESIGN MOMENT CAPACITY (KN/M) WITHOUT LATERAL RESTRAINT.

0.5 - 4.0m spans

					Effecti	ve unbraced	length in met	res (m)		
Member	kg/m	φМ	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
XB250.000	11.21	49.69	46.31	42.92	39.53	36.13	32.74	29.35	21.48	16.45
XB250.025	12.17	75.98	71.19	66.42	61.65	56.88	52.12	47.35	38.83	29.73
XB250.050	13.13	100.20	94.16	88.21	82.27	76.32	70.37	64.43	57.16	43.76
XB250.075	14.09	122.58	115.40	108.43	101.46	94.49	87.52	80.55	73.58	58.16
XB250.100	15.05	143.23	135.00	127.13	119.26	111.39	103.52	95.65	87.78	72.60
XB250.125	16.01	162.24	153.06	144.39	135.73	127.06	118.40	109.74	101.07	86.89
XB250.150	16.97	179.69	169.62	160.26	150.90	141.54	132.18	122.81	113.45	100.89
XB400.000	15.28	96.53	88.92	81.52	74.12	66.71	59.31	44.71	32.85	25.15
XB400.025	16.24	137.84	127.84	118.21	108.59	98.96	89.34	76.87	56.48	43.24
XB400.050	17.20	176.62	164.50	152.98	141.46	129.94	118.42	106.90	82.77	63.37
XB400.075	18.16	213.10	199.06	185.87	172.68	159.50	146.31	133.12	110.75	84.79
XB400.100	19.12	247.44	231.61	216.94	202.27	187.60	172.93	158.25	139.79	107.03
XB400.125	20.08	279.75	262.24	246.24	230.24	214.23	198.23	182.23	166.23	129.73
XB400.150	21.04	310.09	291.02	273.82	256.62	239.42	222.22	205.03	187.83	152.65
XB550.000	19.35	160.16	146.29	132.97	119.64	106.32	90.46	62.82	46.15	35.34
XB550.025	20.31	215.99	198.82	182.53	166.24	149.96	133.67	102.87	75.58	57.86
XB550.050	21.27	268.87	248.75	229.91	211.07	192.22	173.38	147.94	108.69	83.21
XB550.075	22.23	319.05	296.24	275.13	254.02	232.91	211.80	190.69	144.46	110.60
XB550.100	23.19	366.70	341.36	318.22	295.08	271.94	248.80	225.66	182.16	139.47
XB550.125	24.15	411.92	384.22	359.24	334.27	309.29	284.32	259.34	221.24	169.39
XB550.150	25.11	454.82	424.88	398.24	371.60	344.96	318.32	291.69	261.28	200.04

4.5 - 7.5m spans

	16-3				Effectiv	ve unbraced	length in met	res (m)		
Member	kg/m	φМ	4.5	5.0	5.5	6.0	6.5	7.0	7.5	2
XB250.000	11.21	49.69	13.00	10.53	8.70	7.31	6.23	5.37	4.68	
XB250.025	12.17	75.98	23.49	19.03	15.73	13.21	11.26	9.71	8.46	
XB250.050	13.13	100.20	34.58	28.01	23.15	19.45	16.57	14.29	12.45	
XB250.075	14.09	122.58	45.95	37.22	30.76	25.85	22.03	18.99	16.54	
XB250.100	15.05	143.23	57.37	46.47	38.40	32.27	27.50	23.71	20.65	
XB250.125	16.01	162.24	68.66	55.61	45.96	38.62	32.91	28.37	24.72	
XB250.150	16.97	179.69	79.72	64.57	53.36	44.84	38.21	32.94	28.70	
XB400.000	15.28	96.53	19.87	16.09	13.30	11.18	9.52	8.21	7.15	
XB400.025	16.24	137.84	34.17	27.67	22.87	19.22	16.38	14.12	12.30	
XB400.050	17.20	176.62	50.07	40.56	33.52	28.16	24.00	20.69	18.02	
XB400.075	18.16	213.10	67.00	54.27	44.85	37.69	32.11	27.69	24.12	
XB400.100	19.12	247.44	84.57	68.50	56.61	47.57	40.53	34.95	30.44	
XB400.125	20.08	279.75	102.50	83.03	68.62	57.66	49.13	42.36	36.90	
XB400.150	21.04	310.09	120.62	97.70	80.74	67.85	57.81	49.85	43.42	
XB550.000	19.35	160.16	27.92	22.62	18.69	15.71	13.38	11.54	10.05	
XB550.025	20.31	215.99	45.72	37.03	30.61	25.72	21.91	18.89	16.46	
XB550.050	21.27	268.87	65.75	53.26	44.01	36.98	31.51	27.17	23.67	
XB550.075	22.23	319.05	87.39	70.79	58.50	49.16	41.89	36.12	31.46	
XB550.100	23.19	366.70	110.20	89.26	73.77	61.99	52.82	45.54	39.67	
XB550.125	24.15	411.92	133.84	108.41	89.59	75.28	64.15	55.31	48.18	
XB550.150	25.11	454.82	158.06	128.03	105.81	88.91	75.76	65.32	56.90	

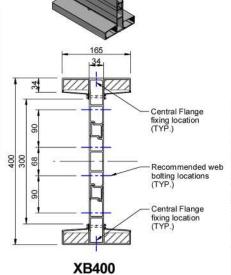


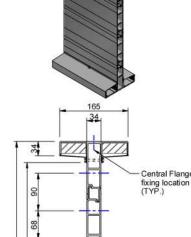
XB250

	XB250 - SECTIONAL PROPERTIES & LIMITS										
CODE	Elx Vert. (Mpa.mm^4)	Vertical NA Shift (mm) **	Vert. BM (kNm)	Vert. Shear (kN)	Ely Horiz. (Mpa.mm^4)	Horizontal NA	Horiz. BM (kNm)	Horiz. Shear (kN)	Mass (kg/m)	Zx *** (mm^3)	Zy *** (mm^3)
XB250.250	1.21E+13	4.81	251.1	70	2.60E+12	2.17	99.9	84.3	20.81	1.33E+06	4.38E+05
XB250.225	1.13E+13	4.74	238.8	70	2.38E+12	2.12	91.2	83.8	19.85	1.24E+06	4.00E+05
XB250.200	1.04E+13	4.65	225.1	70	2.15E+12	2.05	82.5	83.2	18.89	1.15E+06	3.62E+05
XB250.175	9.56E+12	4.52	209.8	70	1.92E+12	1.97	73.76	82.0	17.93	1.05E+06	3.25E+05
XB250.150	8.64E+12	4.35	193.0	70	1.70E+12	1.88	65.1	80.6	16.97	9.54E+05	2.87E+05
XB250.125	7.67E+12	4.12	174.5	70	1.47E+12	1.76	56.3	75.2	16.01	8.48E+05	2.48E+05
XB250.100	6.65E+12	3.8	154.2	70	1.24E+12	1.61	47.6	69.7	15.05	7.38E+05	2.10E+05
XB250.075	5.59E+12	3.36	132.2	70	1.01E+12	1.40	38.9	64.6	14.09	6.22E+05	1.72E+05
XB250.050	4.48E+12	2.71	108.2	70	7.86E+11	1.12	30.2	59.3	13.13	5.01E+05	1.34E+05
XB250.025	3.32E+12	1.71	82.1	70	5.59E+11	0.7	21.5	56.5	12.17	3.75E+05	9.60E+04
XB250.000	2.12E+12	0.00	53.7	70	3.32E+11	0.00	12.8	53.6	11.21	2.42E+05	5.75E+04

		XE	3400 - \$	SECTIO	DNAL P	ROPE	RTIES	& LIMI	TS		
CODE	Elx Vert. (Mpa.mm^4)	Vertical NA Shift (mm) **	Vert. BM (kNm)	Vert. Shear (kN)	Ely Horiz. (Mpa.mm^4)	Horizontal NA	Horiz. BM (kNm)	Horiz. Shear (kN)	Mass (kg/m)	Zx *** (mm^3)	Zy *** (mm^3)
XB400.250	3.52E+13	7.40	371.6	130	2.62E+12	1.98	100.6	85.5	24.88	2.42E+06	4.43E+05
XB400.225	3.27E+13	7.21	352.1	130	2.39E+12	1.91	91.9	84.9	23.92	2.25E+06	4.05E+05
XB400.200	3.01E+13	6.97	330.8	130	2.16E+12	1.84	83.2	84.2	22.96	2.08E+06	3.67E+05
XB400.175	2.75E+13	6.69	307.8	130	1.94E+12	1.75	74.5	82.5	22.00	1.90E+06	3.29E+05
XB400.150	2.48E+13	6.33	283.1	130	1.71E+12	1.65	65.8	80.7	21.04	1.72E+06	2.90E+05
XB400.125	2.20E+13	5.88	256.4	130	1.48E+12	1.52	57.1	75.5	20.08	1.53E+06	2.52E+05
XB400,100	1.91E+13	5.30	227.8	130	1.26E+12	1.36	48.4	70.2	19.12	1.33E+06	2.14E+05
XB400.075	1.62E+13	4.55	197.1	130	1.03E+12	1.16	39.6	65.2	18.16	1.13E+06	1.76E+05
XB400.050	1.32E+13	3.53	164.3	130	8.04E+11	0.90	30.9	60.1	17.20	9.25E+05	1.38E+05
XB400.025	1.01E+13	2.11	129.1	130	5.78E+11	0.53	22.2	58.4	16.24	7.12E+05	9.94E+04
XB400.000	6.90E+12	0.00	91.1	130	3.50E+11	0.00	13.5	56.6	15.28	4.93E+05	6.07E+04

Central Flange fixing location (TYP.)





	XB550 - SECTIONAL PROPERTIES & LIMITS										
CODE	El Vert. (Mpa.mm^4)	Vertical NA Shift (mm) **	Vert. BM (kNm)	Vert. Shear (kN)	El Horiz (Mpa.mm^4)	Horizontal NA	Horiz. BM (kNm)	Horiz. Shear (kN)	Mass (kg/m)	Zx *** (mm^3)	Zy *** (mm^3)
XB550.250	7.18E+13	9.57	472.1	180	2.64E+12	1.82	101.5	86.7	28.95	3.60E+06	4.47E+05
XB550.225	6.66E+13	9.25	447.0	180	2.41E+12	1.75	92.8	86.0	27.99	3.35E+06	4.09E+05
XB550.200	6.14E+13	8.87	420.0	180	2.19E+12	1.67	84.1	85.2	27.03	3.09E+06	3.71E+05
XB550.175	5.61E+13	8.41	391.2	180	1.96E+12	1.58	75.4	83.0	26.07	2.83E+06	3.33E+05
XB550.150	5.07E+13	7.87	360.3	180	1.73E+12	1.47	66.6	80.8	25.11	2.56E+06	2.95E+05
XB550.125	4.51E+13	7.21	327.4	180	1.51E+12	1.34	57.9	75.8	24.15	2.29E+06	2.57E+05
XB550.100	3.95E+13	6.40	292.4	180	1.28E+12	1.18	49.2	70.7	23.19	2.01E+06	2.19E+05
XB550.075	3.37E+13	5.38	255.1	180	1.05E+12	0.99	40.5	65.8	22.23	1.72E+06	1.80E+05
XB550.050	2.79E+13	4.08	215.5	180	8.27E+11	0.75	31.8	60.9	21.27	1.43E+06	1.42E+05
XB550.025	2.19E+13	2.36	173.4	180	6.00E+11	0.43	23.1	60.3	20.31	1.13E+06	1.03E+05
XB550.000	1.58E+13	0.00	128.5	180	3.73E+11	0.00	14.3	59.6	19.35	8.21E+05	6.46E+04

NOTES:

- EI = Material modulus x Section Moment of Inertia (Given in this format due to the use of multiple
- materials). For transformed Aluminium equivilent, divide by 70000.

 **Neutral Axis Shift; Due to the differing compressive and tensile modulii of Carbon Fiber, as the proportion used increases the beam neutral axis will shift further towards the tensile side. The shift measurement shown is from the centre line of the beam.

 ***Zx & Zy Elastic section modulus based on Aluminium transformed properties where E= 70GPa. Beams can be tailored along their length using a combination of the above sections as required.

 [Typically stepped in 200mm Increments]
- (Typically stepped in 200mm Increments)

Aluminium Gr	ade: 6005-T5
Ftu: 262 MPa	Fty: 241 MPa
Fcy: 241 MPa	
Fsu: 165 MPa	Fsy: 138 MPa

XB550

550 82

89

90

Fbu: **552** MPa Fby: 386 MPa E: 70000 MPa



SECTIONA	L PROPERTIES & LI	MITS
MONK	EYTOE - XBEAM V1	
DWG No: XBEAM-SPL-01		26/05/2021
$\triangle \Box$	SHEET 1 OF 1	A3
Ψ	SCALE: 1:2	REV:04
DO NOT SCALE	DIMENSIONS IN MILLIMETERS	

Recommended web bolting locations (TYP.)

Central Flange fixing location (TYP.)

