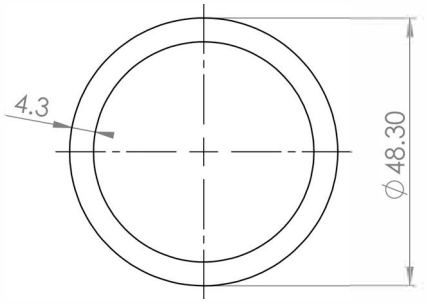
TECHNICAL DATA SHEET

750mm X-Beam

Material Specification	Grade 6082 T6 Aluminium Alloy (only UK sourced aluminium used)
Dimension Specification	Tube: 48.3mm dia. x 4.2-4.4mm wall thickness Oval/Diagonal: 38.1mm x 19.05mm x 3.25mm wall thickness (rec tube 4 rads)



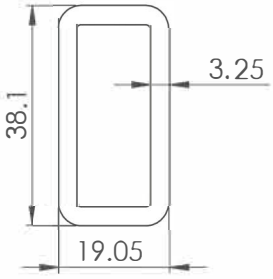
Main Boom & Verticals

If markings are not present then specification is invalid.

1. BS / EN Mark

2. Serial number

3. Manufacturing date



Ovals / Diagonals

Loading Specification	For simply supported single X-Beams to EUROCODE EN-1999-1 / BS 8118.

Overall Graded Results for Allowable Working Loads

Compression chord restraint at 1.0m intervals

		Span (m)					
		3	6	9	12	15	18
Allowable Bending Moment	kN/m	37	37	41	41	42	41
Allowable Shear	kN	44	39	37	37	36	35

Weight	8.0 kg/m
Area	1188mm^2
Ix	147000000mm^4
Iy	290000mm^4

Allowable loads for load distributions

Type of Load		Clear span (m)																
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Uniformally distributed load	kN/m	44.0	29.3	18.5	11.8	8.2	6.0	5.1	4.0	3.3	2.7	2.3	1.9	1.7	1.5	1.3	1.1	1.0
Total UDL	kN	88.0	88.0	74.0	59.2	49.3	42.3	41.0	36.4	32.8	29.8	27.3	25.2	24.0	22.4	21.0	19.3	18.2
Single point load (mid point)	kN	74.0	49.3	37.0	29.6	24.7	21.1	20.5	18.2	16.4	14.9	13.7	12.6	12.0	11.2	10.5	9.6	9.1
Two point loads (third points)	Each kN	44.0	37.0	27.8	22.2	18.5	15.9	15.4	13.7	12.3	11.2	10.3	9.5	9.0	8.4	7.9	7.2	6.8
Three point loads (quarter points)	Each kN	29.3	24.7	18.5	14.8	12.3	10.6	10.3	9.1	8.2	7.5	6.8	6.3	6.0	5.6	5.3	4.8	4.6

Notes:

1. Above allowable loads may be increased by 1.11 for **wind loading only**
2. This table is provided as a guide only and assume all loads are applied at nodes.
3. Maximum capacity of a point load mid-way between nodes is 15kN, but overall buckling of the top chord should be checked if loads are placed other than at restrained loads. Compression chord restraint required at 1m c/c.
4. Restraint point must support both top and bottom booms at restraint location.

Additional Information	Our welders are qualified to: EN 287-1 AS/NZS 1665 2004 BS EN 9606-2 2004 ISO 5817 2007 Welding and material test certs available on request. Apollo Scaffold Services are accredited to EN 1090-1:2009+A1:2011 - Execution of steel structures and aluminium structures (0086-CPR-637568). The manufacture (including welding) of structural work in steel and aluminium up to and including Execution Class 2 (EXC 2) as defined in EN 1090-2 and EN 1090-3. Full set of calculations available on Apollo Scaffold Services website: **apolloscaffoldservices.co.uk**
Disclaimer	**VR Access Solutions Ltd. advise on using a qualified structural engineer to design any project using aluminium beams.**

SCAFFOLDING ASSOCIATION ASSOCIATE MEMBER

Engineering Council Registrant 594492 of the Engineering Council

PCN No. 309960

TÜV NORD TÜV UK Limited

MADE IN BRITAIN

VR ACCESS SOLUTIONS LTD.

TECHNICAL DATA SHEET

750mm X-Beam

Loading Specification	For simply supported single X-Beams to EUROCODE EN-1999-1 / BS 8118.

Overall Graded Results for Allowable Working Loads

Compression chord restraint at 1.5m intervals

		Span (m)					
		3	6	9	12	15	18
Allowable Bending Moment	kN/m	31	31	34	34	34	34
Allowable Shear	kN	34	34	32	31	30	29

Allowable loads for load distributions

Type of Load		Clear span (m)																
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Uniformally distributed load	kN/m	34.0	22.7	15.5	9.9	6.9	5.1	4.3	3.4	2.7	2.2	1.9	1.6	1.4	1.2	1.1	0.9	0.8
Total UDL	kN	68.0	68.0	62.0	49.6	41.3	35.4	34.0	30.2	27.2	24.7	22.7	20.9	19.4	18.1	17.0	16.0	15.1
Single point load (mid point)	kN	62.0	41.3	31.0	24.8	20.7	17.7	17.0	15.1	13.6	12.4	11.3	10.5	9.7	9.1	8.5	8.0	7.6
Two point loads (third points)	Each kN	34.0	31.0	23.3	18.6	15.5	13.3	12.8	11.3	10.2	9.3	8.5	7.8	7.3	6.8	6.4	6.0	5.7
Three point loads (quarter points)	Each kN	22.7	20.7	15.5	12.4	10.3	8.9	8.5	7.6	6.8	6.2	5.7	5.2	4.9	4.5	4.3	4.0	3.8

Notes:

1. Above allowable loads may be increased by 1.11 for **wind loading only.**
2. This table is provided as a guide only and assume all loads are applied at nodes.
3. Maximum capacity of a point load mid-way between nodes is 15kN, but overall buckling of the top chord should be checked if loads are placed other than at restrained loads. Compression chord restraint required at 1.5m c/c.
4. Restraint point must support both top and bottom booms at restraint location.

Compression chord restraint at 2.0m intervals

		Span (m)					
		3	6	9	12	15	18
Allowable Bending Moment	kN/m	24	24	25	25	25	25
Allowable Shear	kN	26	26	24	24	23	22

Allowable loads for load distributions

Type of Load		Clear span (m)																
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Uniformally distributed load	kN/m	26.0	17.3	12.0	7.7	5.3	3.9	3.1	2.5	2.0	1.7	1.4	1.2	1.0	0.9	0.8	0.7	0.6
Total UDL	kN	52.0	52.0	48.0	38.4	32.0	27.4	25.0	22.2	20.0	18.2	16.7	15.4	14.3	13.3	12.5	11.8	11.1
Single point load (mid point)	kN	48.0	32.0	24.0	19.2	16.0	13.7	12.5	11.1	10.0	9.1	8.3	7.7	7.1	6.7	6.3	5.9	5.6
Two point loads (third points)	Each kN	26.0	24.0	18.0	14.4	12.0	10.3	9.4	8.3	7.5	6.8	6.3	5.8	5.4	5.0	4.7	4.4	4.2
Three point loads (quarter points)	Each kN	17.3	16.0	12.0	9.6	8.0	6.9	6.3	5.6	5.0	4.5	4.2	3.8	3.6	3.3	3.1	2.9	2.8

Notes:

1. Above allowable loads may be increased by 1.11 for **wind loading only.**
2. This table is provided as a guide only and assume all loads are applied at nodes.
3. Maximum capacity of a point load mid-way between nodes is 15kN, but overall buckling of the top chord should be checked if loads are placed other than at restrained loads. Compression chord restraint required at 2.0m c/c.
4. Restraint point must support both top and bottom booms at restraint location.

Additional Information	Our welders are qualified to: EN 287-1 AS/NZS 1665 2004 BS EN 9606-2 2004 ISO 5817 2007 Welding and material test certs available on request. Apollo Scaffold Services are accredited to EN 1090-1:2009+A1:2011 - Execution of steel structures and aluminium structures (0086-CPR-637568). The manufacture (including welding) of structural work in steel and aluminium up to and including Execution Class 2 (EXC 2) as defined in EN 1090-2 and EN 1090-3. Full set of calculations available on Apollo Scaffold Services website: **apolloscaffoldservices.co.uk**
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