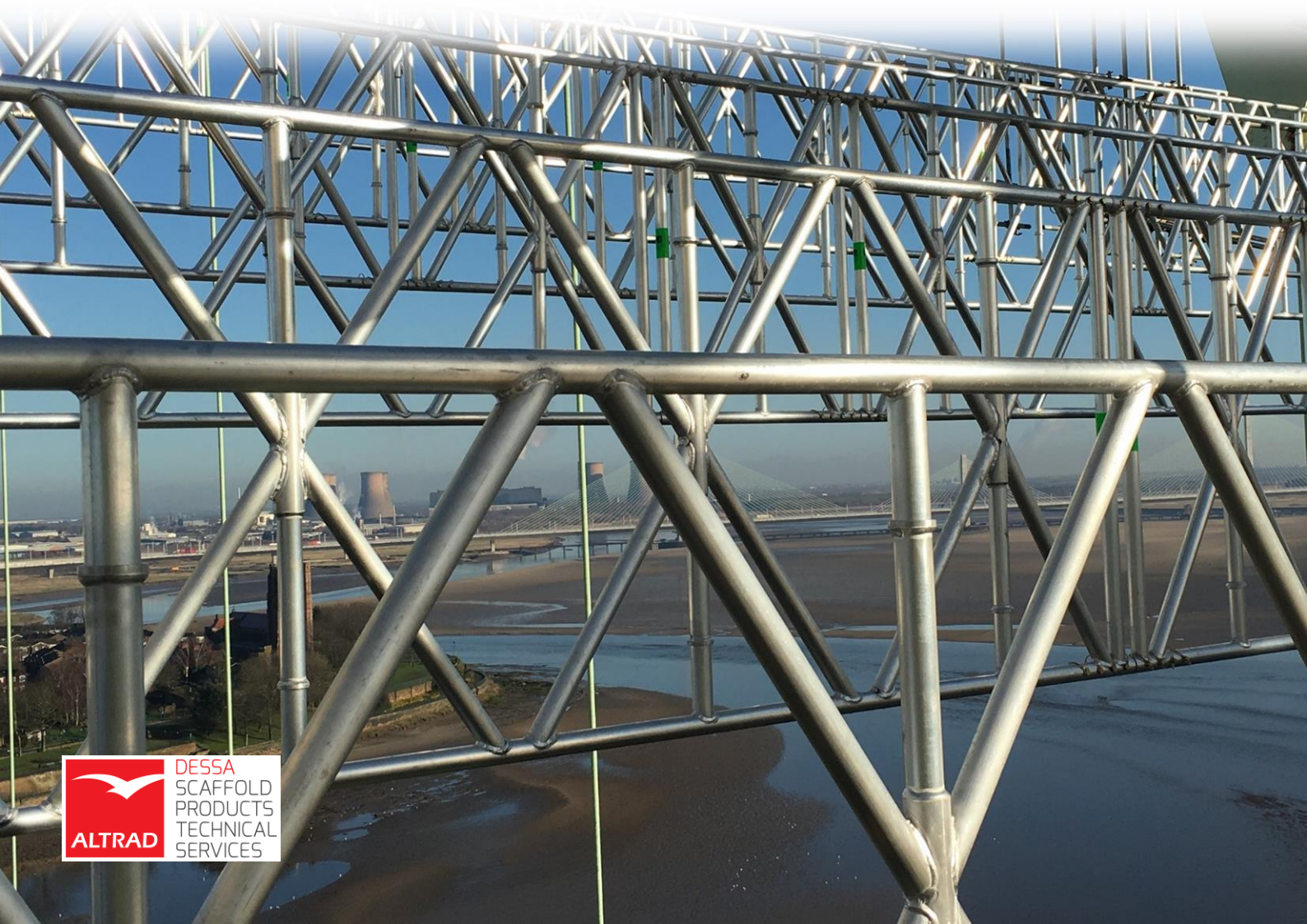


ASTERIX HD

TECHNICAL INFORMATION



ASTERIX HD

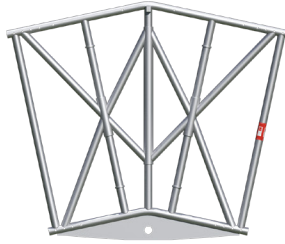
PRODUCT GUIDANCE

ASTERIX HD 128CM BEAMS

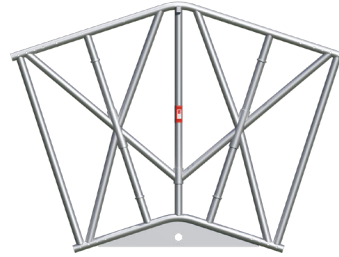
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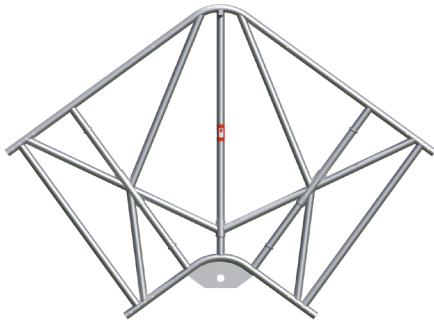
BD0006



BD0012



BD0018



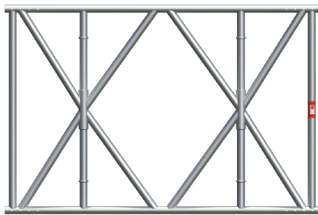
BD0036



BD0112



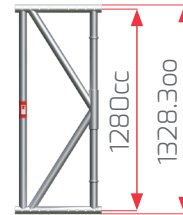
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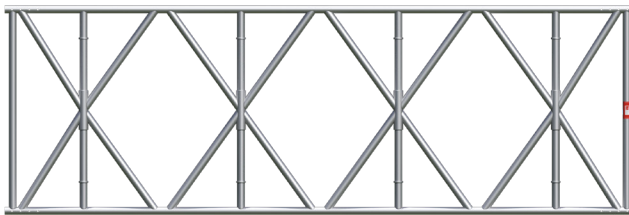
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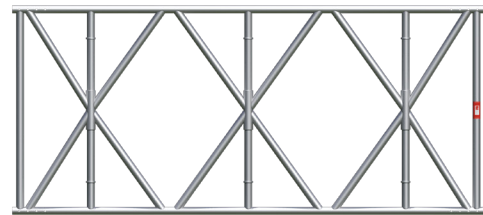
BD1000



BD0550



BD4000

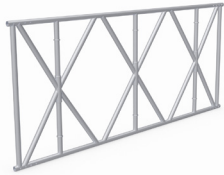


BD3000

ARTICLE	DESCRIPTION	WEIGHT (kg)
BD0012	ASTERIX HD Aluminium ridge beam 12°	25.5
BD0018	ASTERIX HD Aluminium ridge beam 18°	25.0
BD0036	ASTERIX HD Aluminium ridge beam 36°	26.2
BD0112	ASTERIX HD Aluminium eaves beam 12°	18.0
BD0118	ASTERIX HD Aluminium eaves beam 18°	19.4

ARTICLE	DESCRIPTION	WEIGHT (kg)
BD0550	ASTERIX HD Aluminium beam 0.55m	6.3
BD1000	ASTERIX HD Aluminium beam 1m	13.3
BD2000	ASTERIX HD Aluminium beam 2m	22.6
BD3000	ASTERIX HD Aluminium beam 3m	31.9
BD4000	ASTERIX HD Aluminium beam 4m	41.1

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TECHNICAL INFORMATION

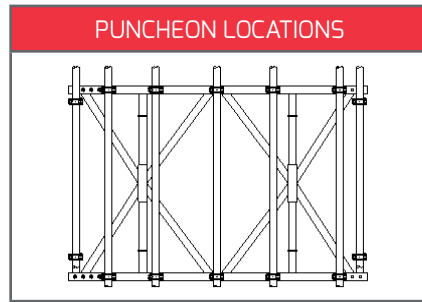
ASTERIX HD BEAM

TIS14001A

ARTICLE	IMAGE	DESCRIPTION	WEIGHT (kg)
BD0018		ASTERIX HD Aluminium Ridge Beam 18°	24.93
BD0550		ASTERIX HD Aluminium Beam 0.55m	6.33
BD1000		ASTERIX HD Aluminium Beam 1.0m	13.33
BD2000		ASTERIX HD Aluminium Beam 2.0m	22.60

ARTICLE	IMAGE	DESCRIPTION	WEIGHT (kg)
BD3000		ASTERIX HD Aluminium Beam 3.0m	31.87
BD4000		ASTERIX HD Aluminium Beam 4.0m	41.13
BS0006		ASTERIX HD Beam Spigot 8HS	1.50

CROSS SECTIONAL PROPERTIES	
	<p>Cx: 2.415 cm Cz: 66.415 cm Ax: 12.3 cm² Ixx: 50451.7 cm⁴ Izz: 29.9 cm⁴</p>



CONNECTIONS	
	<p>Spigot BS0006 plus 8xAF0007 M12x60 G8.8 Bolts or 8xAF0001 M12x60 Quick release pin</p>

PERMISSIBLE BENDING MOMENT (kNm):	PERMISSIBLE REACTION (kN):																				
<table border="1"> <tr><td>Joint, 1 bolt each side, all lacing intervals:-</td><td>31.21</td></tr> <tr><td>Joint, 2 bolts each side, all lacing intervals:-</td><td>62.42</td></tr> <tr><td>Joint, 3 bolts each side, all lacing intervals:-</td><td>93.63</td></tr> <tr><td>Joint, 4 bolts each side, all lacing intervals:-</td><td>124.74</td></tr> <tr><td>Compression chord fully restrained :-</td><td>102.20</td></tr> <tr><td>Compression chord lacing at 1.5m c/c :-</td><td>77.70</td></tr> </table>	Joint, 1 bolt each side, all lacing intervals:-	31.21	Joint, 2 bolts each side, all lacing intervals:-	62.42	Joint, 3 bolts each side, all lacing intervals:-	93.63	Joint, 4 bolts each side, all lacing intervals:-	124.74	Compression chord fully restrained :-	102.20	Compression chord lacing at 1.5m c/c :-	77.70	<p>Supported:-</p> <table border="1"> <tr><td>A) Directly under diagonals</td><td>32.60</td></tr> <tr><td>B) Directly under a post</td><td>32.60</td></tr> <tr><td>C) On two chords**</td><td>42.1(76a)</td></tr> <tr><td>D) On one chord**</td><td>23.7-(55a)</td></tr> </table> <p>**a=Distance in metres from nearest node to point of support. 0.05 ≤ a ≤ 0.23</p>	A) Directly under diagonals	32.60	B) Directly under a post	32.60	C) On two chords**	42.1(76a)	D) On one chord**	23.7-(55a)
Joint, 1 bolt each side, all lacing intervals:-	31.21																				
Joint, 2 bolts each side, all lacing intervals:-	62.42																				
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B) Directly under a post	32.60																				
C) On two chords**	42.1(76a)																				
D) On one chord**	23.7-(55a)																				

SAFE LOADS (BASED ON SUPPORT CONDITION B) COMPRESSION CHORD FULLY RESTRAINED C/C <small>SEE NOTE 7</small>	SPAN (m)					
	4.0	8.0	12.0	16.0	20	
UNIFORM LOAD	(kN/m)	15.21	7.57	5.02	3.15	1.99
	Deflection (mm)	1.44	11.43	38.41	76.19	117.62
SINGLE POINT LOAD AT MID SPAN	(kN)	47.57	47.57	33.94	25.22	19.94
	Deflection (mm)	1.80	14.37	34.60	60.95	94.10
TWO POINT LOADS AT THIRD SPANS	(kN)	30.41	30.28	25.46	18.92	14.95
	Deflection (mm)	1.96	15.58	44.21	77.88	120.24
THREE POINT LOAD AT QUARTER SPANS	(kN)	20.27	20.19	16.97	12.61	9.97
	Deflection (mm)	1.82	14.48	41.09	72.38	111.74

SAFE LOADS (BASED ON SUPPORT CONDITION B) COMPRESSION CHORD LACING AT 1.5m C/C <small>SEE NOTE 7</small>	SPAN (m)					
	4.0	8.0	12.0	16.0	20	
UNIFORM LOAD	(kN/m)	15.21	7.57	4.28	2.38	1.50
	Deflection (mm)	1.44	11.43	32.70	57.42	88.31
SINGLE POINT LOAD AT MID SPAN	(kN)	47.57	38.82	25.66	19.01	14.97
	Deflection (mm)	1.80	11.73	26.16	45.94	70.65
TWO POINT LOADS AT THIRD SPANS	(kN)	30.41	29.12	19.25	14.26	11.23
	Deflection (mm)	1.96	14.98	33.42	58.70	90.27
THREE POINT LOAD AT QUARTER SPANS	(kN)	20.27	19.41	12.83	9.51	7.48
	Deflection (mm)	1.82	13.92	31.06	54.55	83.89

MAXIMUM POINT LOAD LIMITED TO 47.57kN FOR ALL LOAD CONDITIONS.

NOTES

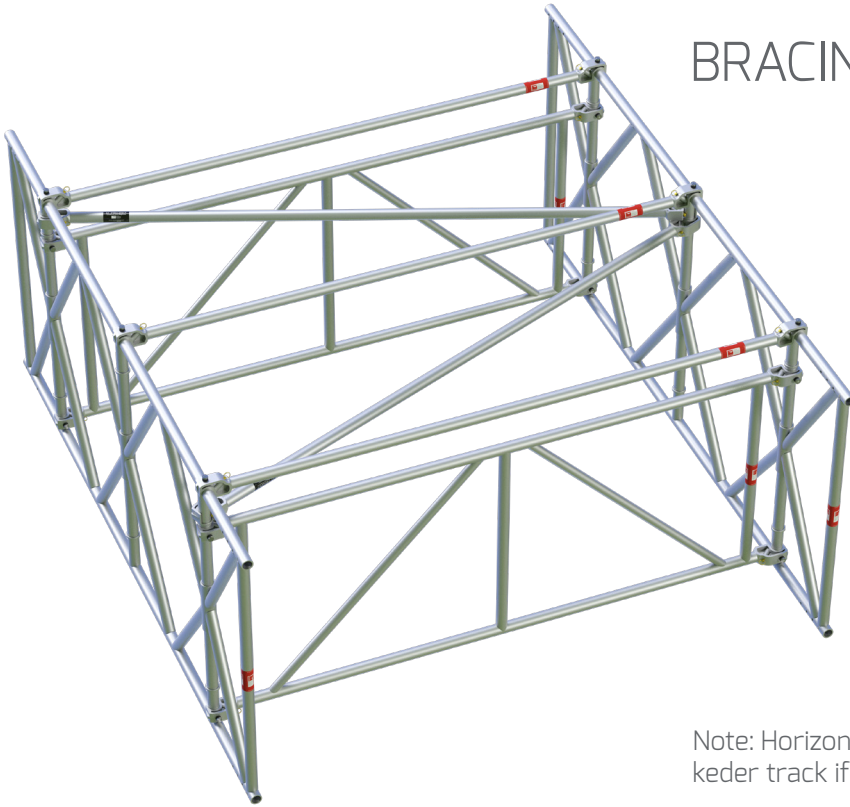
- 1a. Safe load data given for guidance only and assumes simple supports each end.
- 1b. Safe load data tables based on global member capacities, local forces should be assessed specifically by project.
2. This TI sheet is to be read in conjunction with the Beam User Guide USG001.
3. Material specification for all members EN AW 6082 T6.
4. Data provided is calculated in accordance with EN 1999 and factored to EN 12811.
5. Data provided assumes connection using DESSA steel spigot BS0006, secured using Bno. G8.8 M12x60 Bolts with nut.
6. All loads must be applied across 2 chords within 150mm from a node point.
7. All supports must have a minimum width of 35mm.
8. Lacing tubes must be connected using a minimum 3kN connection.

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PRODUCT GUIDANCE

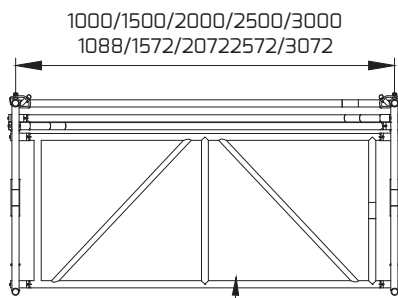
BRACING - ASTERIX HD (ROOF)

PDG16022A

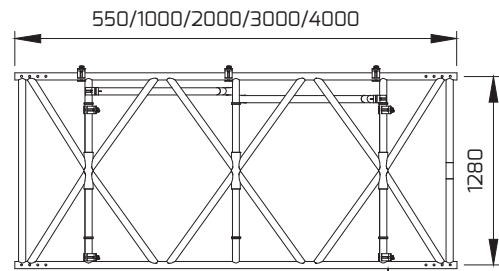


Note: Horizontal braces only required for installation of keder track if required for roofing applications.

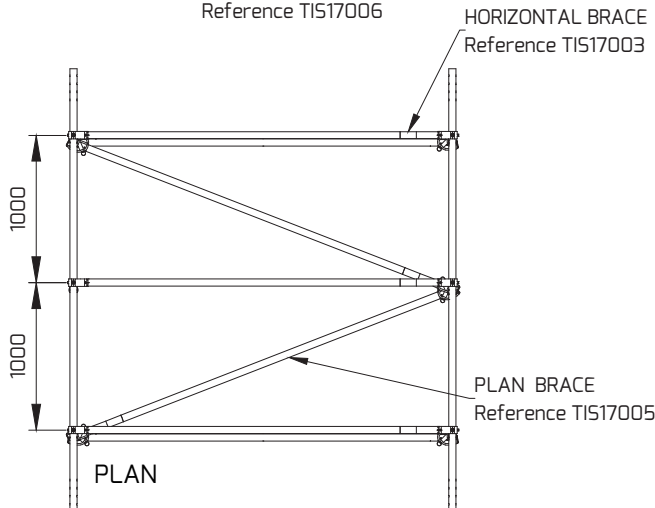
COMPONENT IDENTIFICATION



END ELEVATION
UNI FRAME
Reference TIS17006



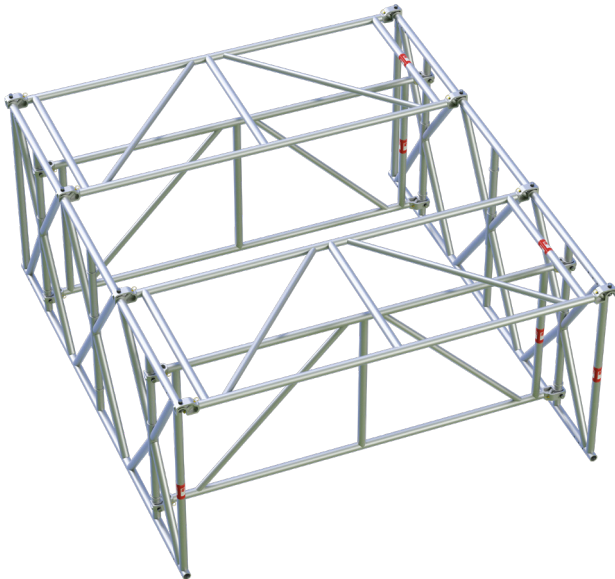
SIDE ELEVATION
ASTERIX HD BEAM
Reference PDG11003
TIS14001



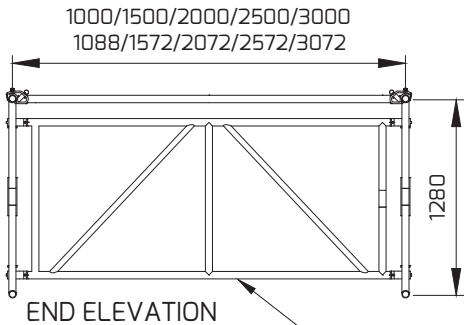
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BRACING - ASTERIX HD AS ROOF WITH UNI FRAMES

PDG16023A

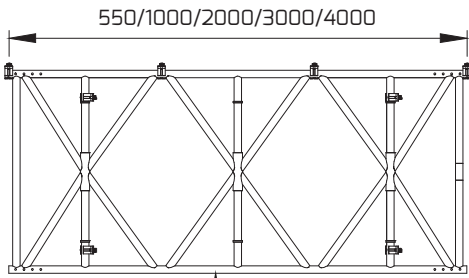


COMPONENT IDENTIFICATION



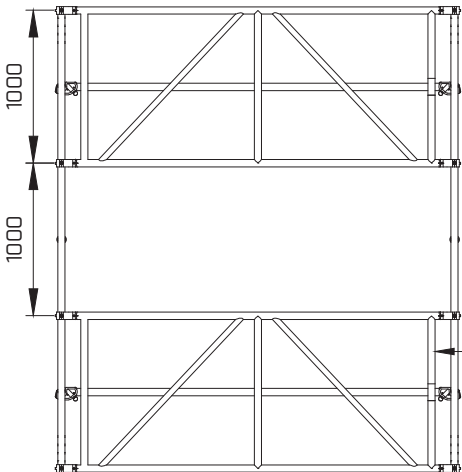
END ELEVATION

UNI FRAME
Reference TIS17006



SIDE ELEVATION

ASTERIX HD BEAM
Reference PDG11003
TIS14001



PLAN

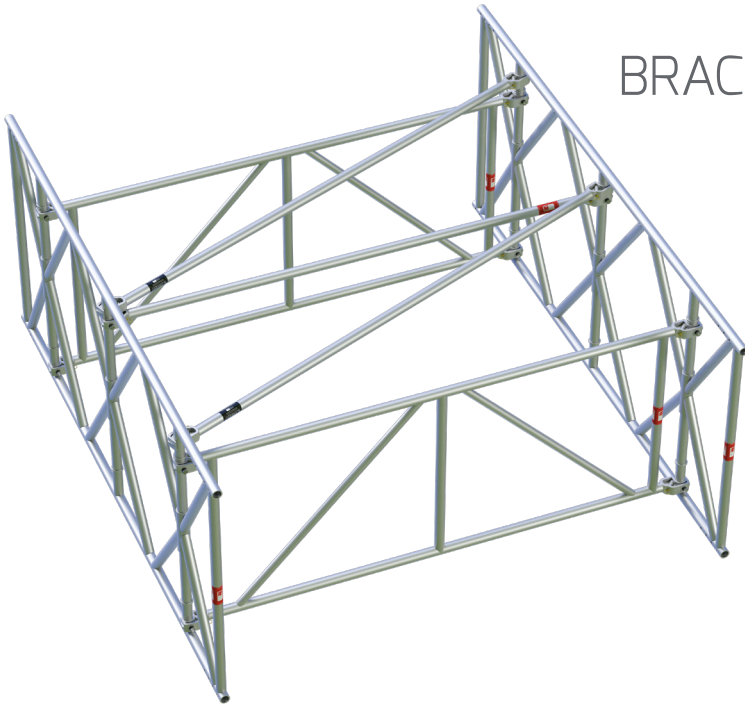
UNI FRAME
Reference TIS17006

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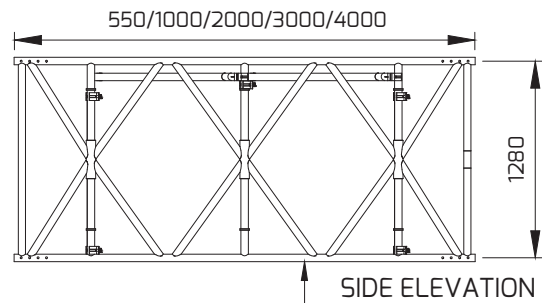
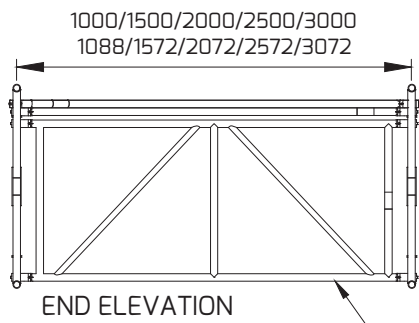
PRODUCT GUIDANCE

BRACING - ASTERIX HD AS SPINE

PDG16024A

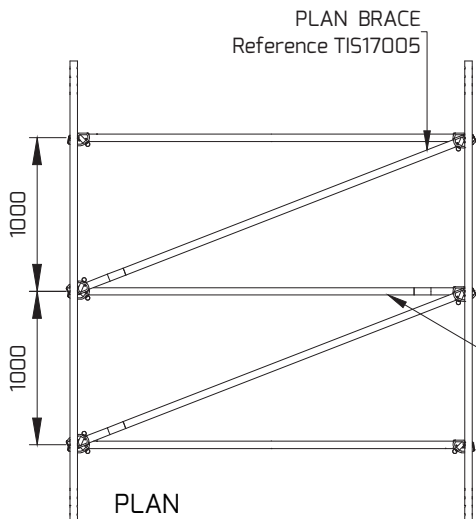


COMPONENT IDENTIFICATION



UNI FRAME
Reference TIS17006

ASTERIX HD BEAM
Reference PDG11003
TIS14001



PLAN BRACE
Reference TIS17005

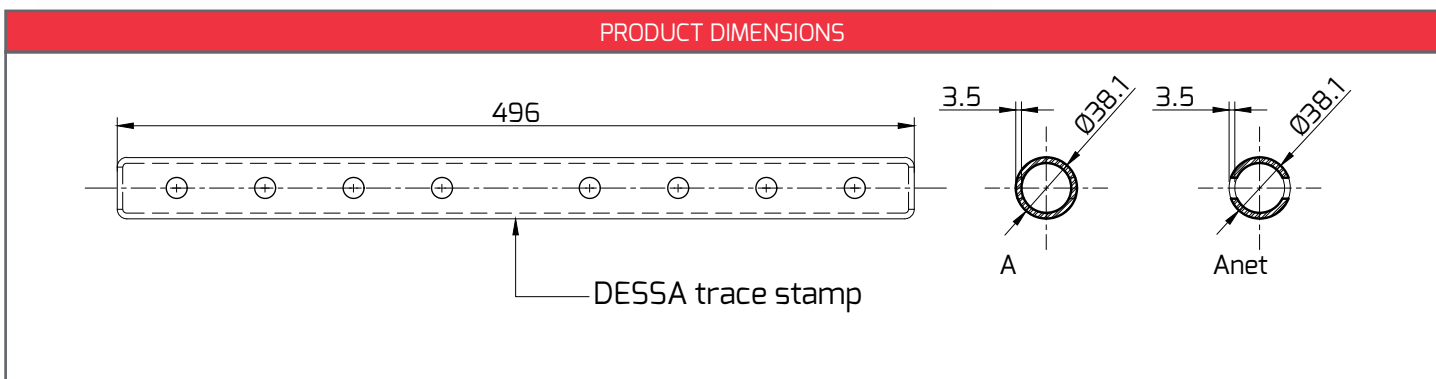
HORIZONTAL BRACE
Reference TIS17003

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TECHNICAL INFORMATION

BEAM SPIGOT BS0006

TIS17014A



ARTICLE	DESCRIPTION	WEIGHT (kg)	SECTION PROPERTIES	MATERIAL
BS0006	Beam Spigot ASTX HD 8HS	1.42	D = 38.10 mm T = 3.50 mm A = 380.45 mm ² A _{net} = 287.13 mm ²	S355 steel F _y = 355 N/mm ² F _u = 510 N/mm ² E = 210000 N/mm ²

LOADING	PERMISSIBLE LOAD
Tension*	81.85 kN
Bending	0.90 kNm
Shear (single)	30.09 kN

USED WITH
DESSA ASTERIX HD BEAMS

*Assuming a 4 pin connection per side of spigot.

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TECHNICAL INFORMATION

QUICK RELEASE PIN AF0001

TIS17026-



ARTICLE	DESCRIPTION	WEIGHT (kg)	MATERIAL GRADE	SURFACE FINISH
AF0001	QUICK RELEASE PIN M12X60	0.07	G8.8 STEEL	ZINC PLATED

PRODUCT DIMENSIONS	SECTION
<p>DESSA TRACE STAMP</p> <p>66</p> <p>60</p>	<p>z</p> <p>Ø12</p> <p>y</p> <p>y</p> <p>z</p>

SECTION PROPERTIES				
AREA	SECOND MOMENT OF AREA (I_{yy} , I_{zz})	RADIUS OF GYRATION (R)	ELASTIC SECTION MODULUS (W_{EL})	PLASTIC SECTION MODULUS (W_{PL})
113.1mm ²	1017.88mm ⁴	3mm	169.65mm ³	288.41mm ³

MATERIAL PROPERTIES		
YIELD STRESS	ULTIMATE STRESS	YOUNGS MODULUS OF ELASTICITY
640 N/mm ²	800 N/mm ²	210,000 N/mm ²

PERMISSIBLE LOADS		
TENSION	BENDING	SHEAR (SINGLE)
43.87 kN	0.07 kNm	32.90 kN

USED WITH
ALL BEAM TO SPIGOT CONNECTIONS

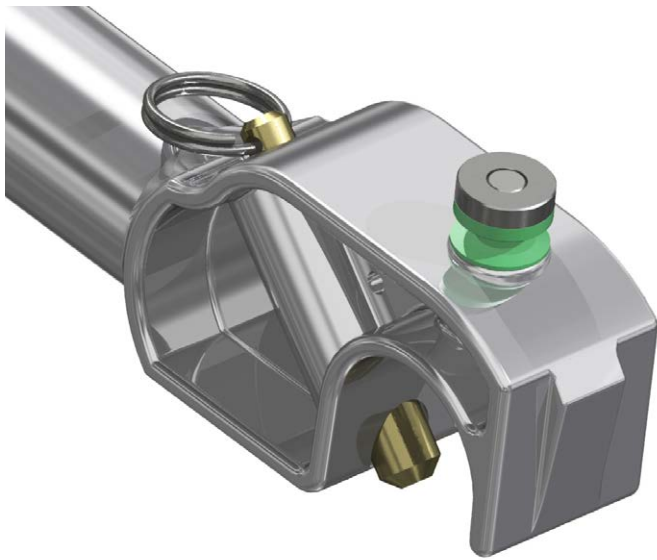
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BRACING

TECHNICAL INFORMATION

DESSA BRACE CLAW

TIS17002B



ARTICLE	DESCRIPTION	WEIGHT (kg)	MATERIAL GRADE
Z00181	DESSA BRACE CLAW	0.55	LM25 TE

PRODUCT DIMENSIONS	FORCES APPLIED

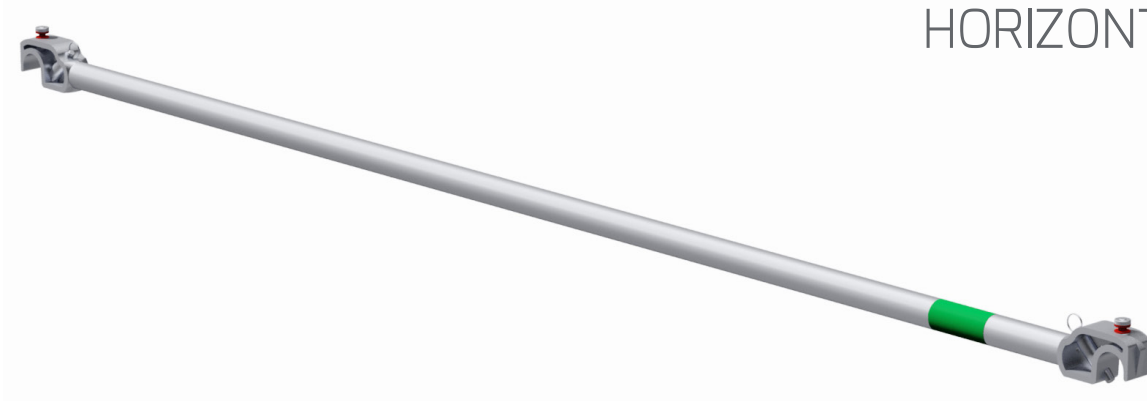
FORCE SYMBOL	DESCRIPTION	PERMISSIBLE LOAD
F_p	PULL-OFF	7.47 kN
F_n	NORMAL FORCE	6.68 kN
F_s	SLIP RESISTANCE	0
M_x	ROTATIONAL RESISTANCE (X)	0.41 kNm
M_y	ROTATIONAL RESISTANCE (Y)	0

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TECHNICAL INFORMATION

HORIZONTAL BRACES

TIS17003C



ARTICLE	DESCRIPTION	WEIGHT (kg)	BRACE LENGTH (m)	COLOUR CODING	PERMISSIBLE LOADINGS			
					POINT LOAD (kN)	UDL (kN/m)	TENSION (kN)*	BUCKLING (kN)
UH0300	UNI horizontal brace 0.30m	1.41	0.3		9.49	63.25	11.60	39.39
UH1000	UNI horizontal brace 1.00m	2.12	1		2.85	5.69	11.60	26.61
UH1088	UNI horizontal brace 1.09m	2.21	1.088		2.62	4.81	11.6	23.90
UH1500	UNI horizontal brace 1.50m	2.64	1.5		1.90	2.53	11.60	14.80
UH1572	UNI horizontal brace 1.57m	2.71	1.572		1.81	2.30	11.60	13.71
UH2000	UNI horizontal brace 2.00m	3.15	2		1.42	1.42	11.60	9.10
UH2072	UNI horizontal brace 2.07m	3.22	2.072		1.37	1.33	11.60	8.54
UH2500	UNI horizontal brace 2.50m	3.66	2.5		1.14	0.91	11.60	6.06
UH2572	UNI horizontal brace 2.57m	3.73	2.572		1.11	0.86	11.60	5.74
UH3000	UNI horizontal brace 3.00m	4.17	3		0.95	0.63	11.60	4.28
UH3072	UNI horizontal brace 3.07m	4.24	3.072		0.93	0.60	11.60	4.09

*LIMITED BY CLAW TENSION FAILURE

SECTION	SECTION PROPERTIES	MATERIAL
	<p>A: 3.73 cm² Cz, Cy: 2.41 cm Izz, Iyy: 9.77 cm⁴</p>	<p>EN AW 6082-T6</p> <p>Fy = 250N/mm² Fu = 290N/mm²</p>

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TECHNICAL INFORMATION

PLAN BRACES

TIS17005B



ARTICLE	DESCRIPTION	WEIGHT (kg)	BRACE LENGTH (m)	PERMISSIBLE LOADINGS			
				POINT LOAD (kN)	UDL (kN/m)	TENSION (kN)*	BUCKLING (kN)
UP1414	UNI plan brace 1.00x1.00m	2.42	1.414	2.01	2.85	11.60	16.26
UP1478	UNI plan brace 1.00x1.08m	2.6	1.478	1.93	2.61	11.60	15.60
UP1803	UNI Plan brace 1.50x1.00m	2.86	1.803	1.58	1.75	11.60	10.90
UP1863	UNI Plan brace 1.57x1.00m	2.92	1.863	1.53	1.64	11.60	10.30
UP2236	UNI plan brace 2.00x1.00m	3.25	2.236	1.27	1.14	11.60	7.44
UP2301	UNI plan brace 2.07x1.00m	3.31	2.301	1.24	1.08	11.60	7.06
UP2500	UNI Plan brace 1.50x2.00m	3.67	2.5	1.14	0.91	11.60	6.06
UP2544	UNI Plan brace 1.57x2.00m	3.71	2.544	1.12	0.88	11.60	5.86
UP2693	UNI Plan brace 2.50x1.00m	3.77	2.693	1.06	0.78	11.60	5.27
UP2760	UNI plan brace 2.57x1.00m	3.77	2.76	1.03	0.75	11.60	5.03
UP2828	UNI Plan brace 2.00x2.00m	3.91	2.828	1.01	0.71	11.60	4.80
UP2880	UNI plan brace 2.07x2.00m	3.9	2.88	0.99	0.69	11.60	4.63
UP3162	UNI Plan brace 3.00x1.00m	4.25	3.162	0.90	0.57	11.60	3.87
UP3202	UNI Plan brace 2.50x2.00m	4.29	3.202	0.89	0.56	11.60	3.78
UP3231	UNI plan brace 3.07x1.00m	4.25	3.231	0.88	0.55	11.60	3.71
UP3258	UNI plan brace 2.57x2.00m	4.28	3.258	0.87	0.54	11.60	3.65
UP3606	UNI Plan brace 3.00x2.00m	4.7	3.606	0.79	0.44	11.60	3.00
UP3666	UNI plan brace 3.07x2.00m	4.69	3.666	0.78	0.42	11.60	2.91

*LIMITED BY CLAW TENSION FAILURE

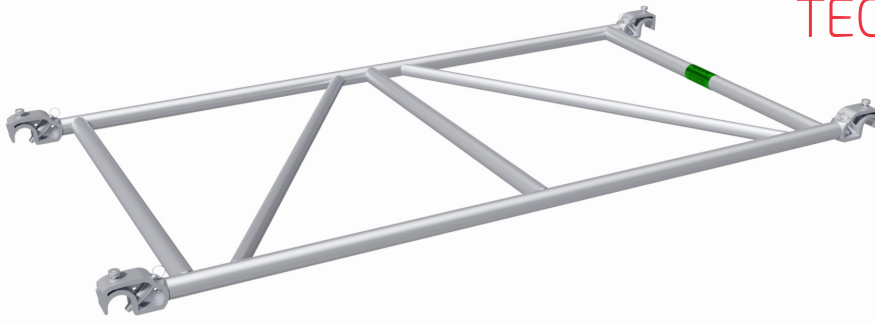
SECTION	SECTION PROPERTIES	MATERIAL
	<p>A: 3.73 cm² Cz, Cy: 2.41 cm Izz, Iyy: 9.77 cm⁴</p>	<p>EN AW 6082 - T6 Fy = 250N/mm² Fu = 290N/mm²</p>

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TECHNICAL INFORMATION

BRACE FRAMES

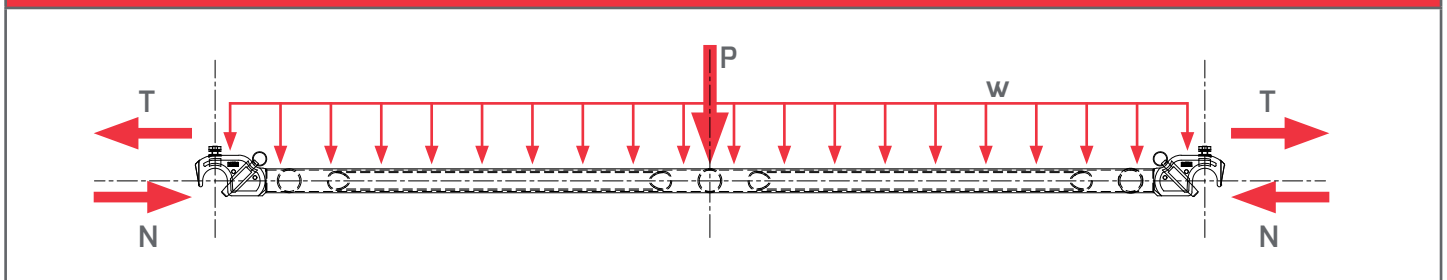
TIS17006B



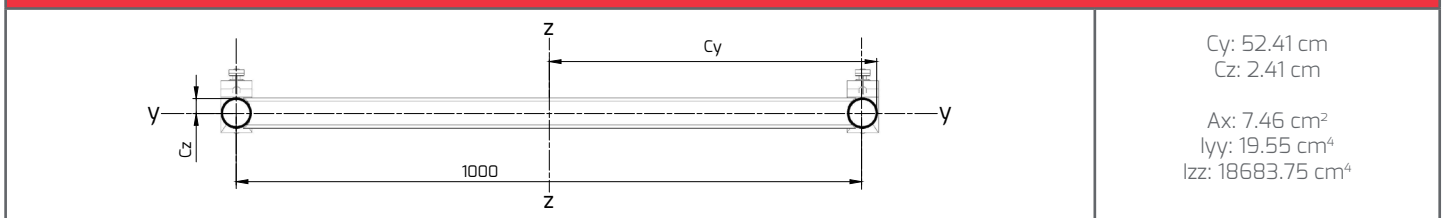
ARTICLE	IMAGE	DESCRIPTION	WEIGHT (kg)	BRACE LENGTH (m)	PERMISSIBLE LOADINGS			
					POINT LOAD "P" (kN)	UDL "w" (kN/m)	*TENSION "T" (kN)	BUCKLING "N" (kN)
UK1000		UNI Frame 1mx1m	7.80	1.0	5.69	11.38	23.20	77.58
UK1088		UNI Frame 1.09x1m	8.00	1.088	5.23	9.62	23.2	75.22
UK1500		UNI Frame 1.5mx1m	8.94	1.5	3.79	5.06	23.20	55.82
UK1572		UNI Frame 1.57mx1m	9.09	1.572	3.62	4.61	23.20	52.10
UK2000		UNI Frame 2mx1m	11.08	2.0	2.85	2.85	23.20	34.56
UK2072		UNI Frame 2.07mx1m	11.22	2.072	2.75	2.65	23.20	32.40
UK2500		UNI Frame 2.5mx1m	12.30	2.5	2.28	1.82	23.20	22.72
UK2572		UNI Frame 2.57mx1m	12.47	2.572	2.21	1.72	23.20	21.50
UK3000		UNI Frame 3mx1m	13.61	3.0	1.90	1.26	23.20	15.86
UK3072		UNI Frame 3.07mx1m	13.76	3.072	1.85	1.21	23.20	15.12

*LIMITED BY CLAW TENSION FAILURE

FORCES APPLIED

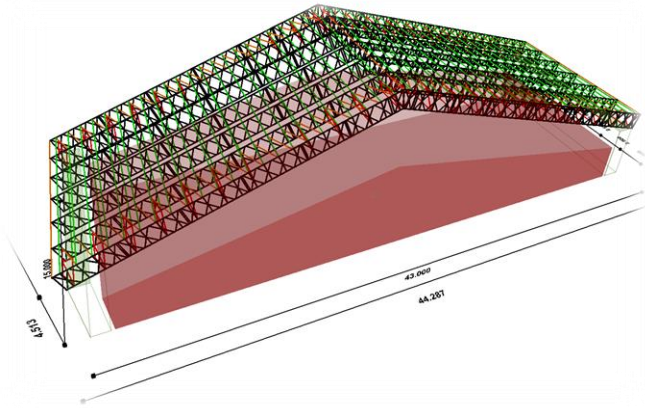


CROSS SECTIONAL PROPERTIES



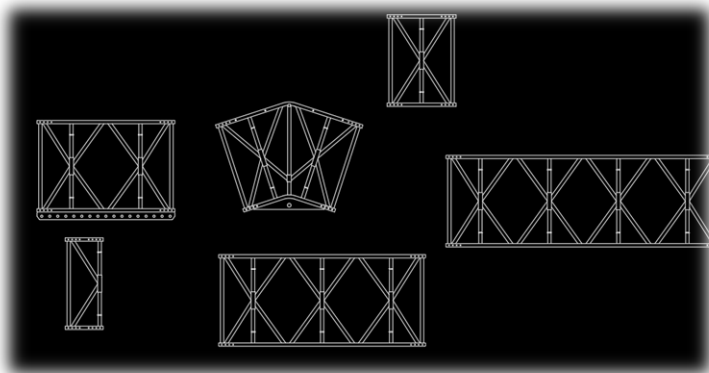
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SOFTWARE

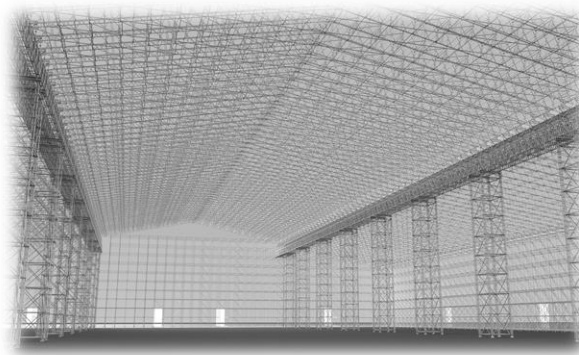
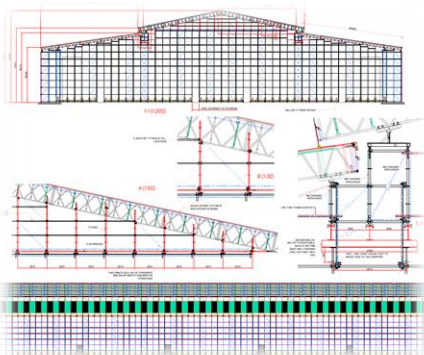


DESSA EstAssist
3D quantification and
visualisation of bridging
spans and roofs

DESIGNERS INFORMATION



Designer packs available
2D .dwg, dynamic
3D .dwg, lightweight
.skp
.max



OTHER PRODUCTS FROM DESSA INCLUDE:

RANGER™ STAIR



SAFETY PRODUCTS

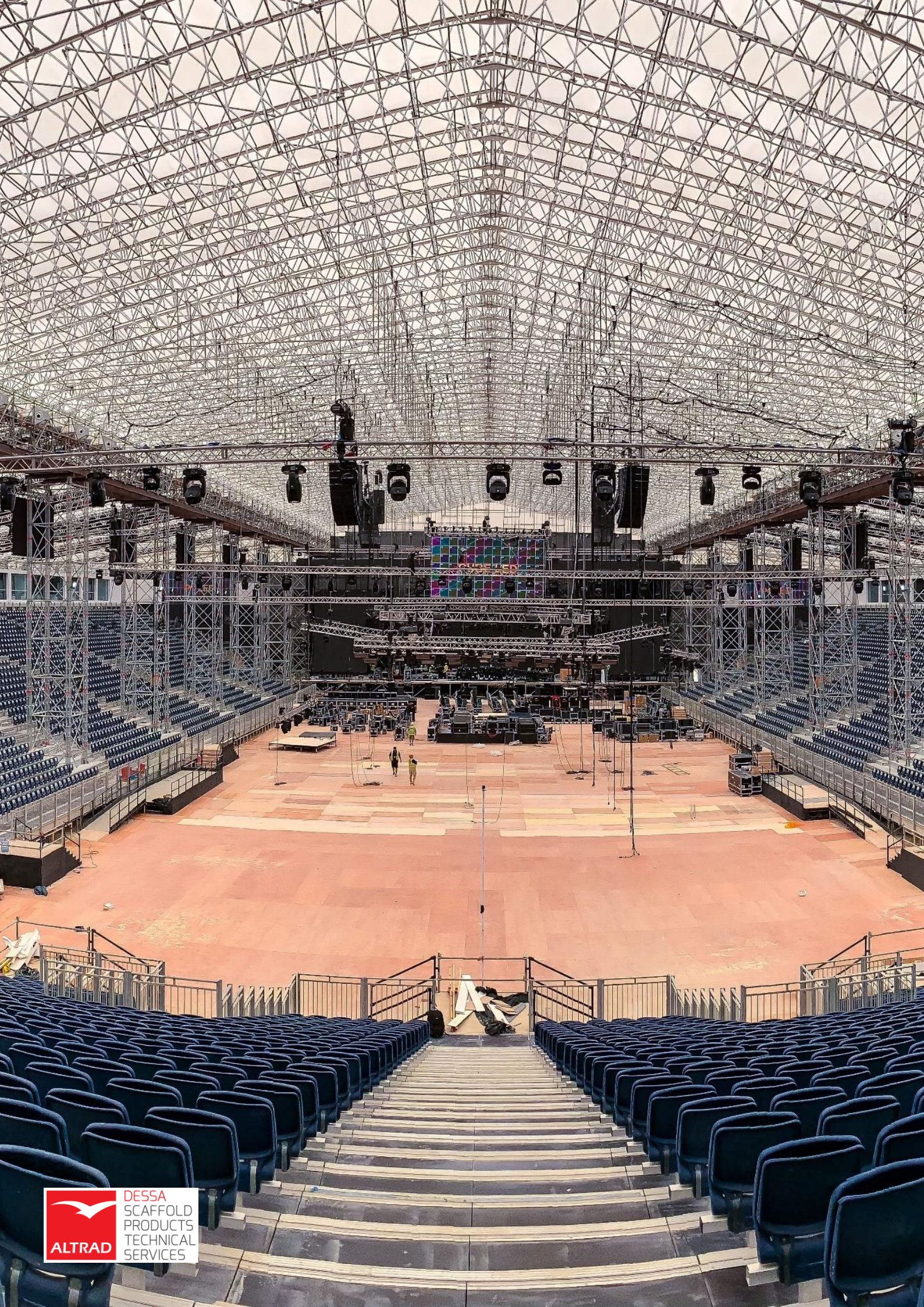


MINI CATCH NET FAN



LATTICE GIRDERS







DESSA
SCAFFOLD
PRODUCTS
TECHNICAL
SERVICES

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