

**Alistage Ltd Combined Risk Assessment & Method Statement - "Stage"**

01/02/2017

Activity and/or Hazard	Risk Due To	To Whom	Action or Control
<b>Liaison and co-ordination on site</b>	Lack of liaison or co-ordination	Rigging Crew Other Contractors Venue Staff Public	A Site Supervisor is appointed to control and co-ordinate the Rigging Crew in all matters. The Site Supervisor is responsible for liaison on site with all parties.
	Lack of response to feedback	Rigging Crew Other Contractors Venue Staff Public	Any comments (praise, criticism, suggestions, etc.) made to the rigging crew shall be passed to the Site Supervisor who is responsible to report such comments to Head Office for the appropriate action.
<b>Rigging Crews presence on site</b>	Venue, site or organisers unaware of Rigging Crews attendance	Rigging Crew Other Contractors Venue Staff Public	Site Supervisor to report both arrivals and departures to site, venue or organisers nominated staff
<b>Local site regulations</b>	Failure to comply	Rigging Crew Other Contractors Venue Staff Public	Site Supervisor to brief the rigging crew on prevailing site regulations and ensure compliance. Where formal site induction's are held the Site Supervisor is to ensure all crew attend the induction.
<b>Access Routes</b>	Ground of insufficient load bearing	Rigging Crew	Site Supervisor to survey site for hazards. Any major hazards are to be reported to the client and Head Office immediately for review/action before proceeding.
	Obstacles and obstructions, including overhead (e.g. electric cables)	Rigging Crew	Any minor hazards are to be reported to the client and rigging crew together with details of appropriate action.
<b>Movement and use of vehicles on site or in venues</b>	General	Rigging Crew Other Contractors Venue Staff Public	Where the use of vehicles is permitted within sites or venues their use shall be restricted to the areas or routes advised by the client/site/venue.
	Collision	Rigging Crew Other Contractors Venue Staff Public	Vehicles to be moved with care and compliance with speed restrictions. Use of flashing amber hazard lights. Where necessary vehicles to be accompanied by crew on foot.
	Build up of exhaust fumes inside venues	Rigging Crew Other Contractors Venue Staff	Engines to be turned off except when vehicle being moved
	Obstruction when parked	Rigging Crew Other Contractors Venue Staff Public	It is the clients responsibility to make suitable parking arrangements. On site parking regulations to be observed. Vehicles moved to appointed parking zones once off-loaded.
	Failure to comply with mandatory regulations	Rigging Crew Other Contractors Venue Staff Public	It is the drivers responsibility to ensure that the vehicle is in a roadworthy condition at all times and both the vehicle and the driving complies with the prevailing national and site regulations.  Particular attention shall be made by drivers of large goods vehicles as to the correct use of tachograph charts and compliance with the regulations regarding drivers hours and rest periods.
<b>Site suitability</b>	Insufficient ground load bearing	Rigging Crew	Site Supervisor to survey site for hazards. Any major hazards are to be reported to the client and Head Office immediately for review/action before proceeding.
	Obstacles and obstructions, including overhead (i.e. electric cables)	Rigging Crew	Any minor hazards are to be reported to the client and rigging crew together with details of appropriate action.

Activity and/or Hazard	Risk Due To	To Whom	Action or Control
<b>Site suitability (continued)</b>	Obstruction of access routes and exits	Rigging Crew Other Contractors Venue Staff Public	Access routes and exits to remain clear unless specifically permitted by the site or venue
<b>Personal Safety</b>	Dangerous working practices	Rigging Crew Other Contractors Venue Staff Public	Site Supervisor to ensure that all crew work with due regard to their own safety and the safety of others
	Danger from stage structure itself	Other Contractors Venue Staff Public	Consideration to be given to an exclusion zone being created to keep non-rigging staff a safe distance from the structure at all times.
	Incorrect use personal safety equipment	Rigging Crew	Site Supervisor to ensure that all rigging crew use the appropriate Personal Protection Equipment (PPE) such as gloves, hard hats, safety footwear and hi-vis vests as required by a) the nature of the activity, b) the requirements of the site or venue, c) the requirements of the client.
	Damaged or lost PPE equipment	Rigging Crew	All crew members are responsible for taking reasonable care of all PPE equipment. They are also responsible for the immediate reporting of any loss or obvious defect regarding PPE equipment.
	Use of intoxicating substances	Rigging Crew Other Contractors Venue Staff Public	The use or consumption of intoxicating substances or other substances which may impair judgement is forbidden
	Manual handling	Rigging Crew	Delivery vehicles should access as close as possible to where the equipment is to be used to minimise carry distance.
			Mechanical handling equipment should be used where available to minimise the requirement for manual handling.
			Crew shall employ safe lifting practices at all times with two or more crew co-ordinating their efforts to lift heavy or awkward items.
			Crew duties shall be rotated to minimise the time that any individual is required to undertake manual handling and avoid fatigue.
			Where duties require manual handling crew shall be allowed sufficient rest periods.
Presence and activity of other workers	Rigging Crew	The Rigging Crew are to be alert to the movement of others and the work that they are undertaking at all times. At no time shall work take place above where the Rigging Crew are working below.	
Additional work	Rigging Crew	The Rigging Crew shall restrict their activities to those required to fulfil our contract with the client. All requests for additional unrelated work shall be referred to Head Office.	
Exposure to Sun	Rigging Crew	When working outside during summer months the Rigging Crew should wear appropriate clothing and use adequate sunscreen to protect against affects of the sun. Drinks should be consumed regularly to avoid dehydration.	

Activity and/or Hazard	Risk Due To	To Whom	Action or Control
<b>Erection and dismantling of equipment</b>	Unauthorised access	Other Contractors Venue Staff Public	Access to incomplete or part built structures is to be restricted to rigging crew only. Where part built structures are left unattended they are to be marked with warning signs or barrier tape to prevent access.
	Work at height	Rigging crew	The erection of the equipment takes place at either ground level or stage level only. At all times it is the site supervisors responsibility to ensure that all work is undertaken with due respect to the Work at Height Regulations.
	Incorrect erection	Rigging Crew Other Contractors Venue Staff Public	Work to be undertaken or supervised by persons possessing adequate training, experience and knowledge so that they are considered competent to undertake such a task.
			Site Supervisor to ensure that the necessary job information including layout and assembly drawings (in sufficient number and detail) are available.
			Equipment is to be erected in accordance with the equipment layout drawings with each stage levelled to accommodate uneven ground ensuring all legs are fully supporting their load with plywood spreader boards used under stage legs on soft ground and all connections between stages in place.
			Upon completion all equipment is inspected by the Site Supervisor to ensure correct erection/installation.
			Where barriers or fencing are supplied the Site Supervisor shall ensure that the equipment is erected in accordance with the manufacturers instructions.
	Use of Subcontract Labour	Rigging Crew Other Contractors Venue Staff Public	Only specialist subcontract crew companies used - no casual labour employed.
			Site Supervisor to control, co-ordinate and supervise subcontract labour to ensure correct and safe methods and practices are adhered to.
	Minor changes to design	Rigging Crew Other Contractors Venue Staff Public	The Site Supervisor will consider all request to change or amend the design. Changes that are minor and do not affect the integrity of the structure may be permitted. All changes must be recorded on a Variation Order which must be completed by the Site Supervisor and Client.
Major changes to design	Rigging Crew Other Contractors Venue Staff Public	The Site Supervisor will refer all requests for major changes to the design to Head Office for consideration. Where after consideration major changes are permitted a Variation Order must be completed by the Site Supervisor and Client to record the change.	
Storage of equipment	Rigging Crew Other Contractors Venue Staff Public	Whilst equipment is being erected or dismantled all materials will be stored on site with due regard to safety and ensuring that access routes and exits remain unobstructed at all times.	
Surplus equipment	Rigging Crew Other Contractors Venue Staff Public	Upon completion of the erection all surplus equipment to be removed from site to prevent the possibility of it becoming a hazard	
Incorrect dismantling sequence	Rigging Crew Other Contractors Venue Staff Public	The Site Supervisor will ensure the correct dismantling procedure is followed thus maintaining the structural integrity of the equipment at all times	

Activity and/or Hazard	Risk Due To	To Whom	Action or Control
<b>Erection and dismantling of equipment (continued)</b>	Incorrect use of kentledge or ground stakes	Rigging Crew Other Contractors Venue Staff Public	Where kentledge or ground stakes are required to secure equipment in position the Site Supervisor will pay particular attention to their use and fitting to ensuring the structural stability of the equipment.
	Use of sheet materials to "Over-board" or "double skin"	Rigging Crew Other Contractors Venue Staff Public	Where plywood or similar sheet materials are overlaid on top of stage equipment they shall be securely fixed to the stage decks to prevent them being lifted by the wind.
<b>Fire</b>	Flammable materials	Rigging Crew Other Contractors Venue Staff Public	Standard black valance material is inherently flame retardant and complies with the requirements of BS 5867 Part 2 1980 Type B Performance using test method 2
			Site Supervisor to ensure that nothing will be placed under the stage.
<b>Mechanical handling equipment</b>	Incorrect use	Rigging Crew Other Contractors Venue Staff Public	Mechanical handling equipment is to be operated by persons possessing adequate training, experience or knowledge so that they are considered competent to operate such equipment.
	Collision	Rigging Crew Other Contractors Venue Staff Public	Whilst mechanical handling is in use access to the immediate area is to be restricted to the Rigging crew only. Others working nearby should be made aware that mechanical handling equipment is in use.
<b>Accidents and dangerous occurrences</b>	Unreported incidents preventing corrective action	Rigging Crew Other Contractors Venue Staff Public	Any accidents or dangerous occurrences are to be reported in accordance with RIDDOR 2013 to a) the client, b) a representative of the venue or site c) an Alistage Ltd Director, d) the HSE.
<b>Use of equipment</b>	Client unaware of potential hazards	Other Contractors Venue Staff Public	Once the equipment is complete and the final inspection by the Site Supervisor has taken place the client will be invited to inspect the equipment to satisfy themselves that the equipment is complete and is as agreed.
			A Completion/Handing-over Certificate is used to formally hand over the equipment to the client.
			The client will receive a copy of "Risk assessment for the information of the client" detailing potential risks associated with the use of the equipment.

The following pages (5 & 6) refer specifically to the Combined Risk Assessment & Method Statement in respect of the Alidome and must be read in conjunction with the first 4 pages of this document.

**Alistage Ltd Combined Risk Assessment & Method Statement - "Alidome"**

This "Risk Assessment & Method Statement - Alidome" section only considers and details the **additional** operations involved in assembling using and dismantling the Alidome roof structure. The "Risk Analysis & Method Statement - Stage" will therefore also apply.

Activity and/or Hazard	Risk Due To	To Whom	Action or Control
<b>Weather Conditions</b>	Wind Speed	Rigging Crew Other Contractors Venue Staff Public	Site supervisor to inspect the site for any factors that may affect the wind conditions such as the equipment being sited on top of a hill and any surrounding structures that may accelerate wind speed. Where such factors present a problem they shall be reported to Head Office for consideration.
			Alidome's are designed for a maximum wind speed of 18 metres per second (40 Miles per hour). Once the wind speed increases to 80% of the maximum designed speed (14.4m/s 32mph) the roof covers must be removed. The removal of the roof covers is done from ground level.
			Alidome's of 8.23m, 10.05m and 12.2m span are normally supplied with a battery powered anemometer to measure and monitor wind speed. The anemometer is designed to give an audible alarm should the wind speed reach 80% of the maximum designed wind speed. Determination of the wind speed may also be by reference to the Beaufort Scale.
	Snow Fall	Rigging Crew Other Contractors Venue Staff Public	Snow loading has not been considered within the structural calculations made on the Alidome's. Should snow fall occur and settle the roof covers must be removed.
<b>Securing equipment to the ground</b>	Uplift	Rigging Crew Other Contractors Venue Staff Public	To resist uplift either steel ground stakes or additional kentledge must be used. The steel stakes or kentledge must be located prior to the covers being fitted and may only be removed once the covers have been removed.
			Where steel ground stakes are used they shall be 25mm diameter and 1m long. Two ground stakes are to be fitted through each of the Alidome base plates with the stakes driven in to the ground at an approximate angle of 45°.
			Where ground stakes cannot be used additional kentledge is required this will normally be in the form of steel weights.
			On Alidome's of 8.325m, 10.05m and 12.2m span a total of 250kg of kentledge must be fitted to each of the Alidome steel base plates.
			On Alidome's of 4.88m and 6.1m span a total of 200kg of additional kentledge must be fitted to each of the Alidome steel base plates.
			Other forms of additional kentledge such as water filled containers or sandbags are permitted (although not advised). In such cases the kentledge shall not be less than that afforded by the use of steel weights as detailed above.
	Underground services	Rigging Crew	Where ground stakes are to be used to secure equipment in position it is the client's responsibility to ensure the area is free of underground services such as gas or electricity supplies.

Activity and/or Hazard	Risk Due To	To Whom	Action or Control
<b>Lateral Forces</b>	Horizontal loads across the width of the system	Rigging Crew Other Contractors Venue Staff Public	Where kentledge is used in place of ground stakes there the is the additional requirement to fit ties across the width of the 8.235m, 10.05m and 12.2m span systems to resist the horizontal forces created by the roof loading. These ties will be in the form of bar couplers fitted between the adjacent stage legs across the width of the system.  An alternative to the use of bar couplers is to use either wire ropes or nylon ratchet straps fitted between opposing arched ribs just below stage level.
<b>Use of Mobile Access Tower</b>	Incorrect erection and use	Rigging Crew	Where a mobile access tower is used in the erection of the Alidome roof structure the assembly, use and dismantling of the mobile access tower shall only be undertaken by, or supervised by crew members who hold a PASMA Standard Course certificate.
	Use of tower to hoist roof members	Rigging Crew	At no time shall any personnel or materials be on the tower whilst it is being used in conjunction with the extending mast to hoist the roof members.
<b>Fire</b>	Flammable materials	Rigging Crew Other Contractors Venue Staff Public	The Alidome P/V covers are inherently flame retardant and comply with the requirements of BS 5867 Part 2 1980 Type A when tested to BS 5438 1989 Test 2 (10 sec).
<b>Erection of equipment</b>	Working at height	Rigging Crew	The majority of the rigging is undertaken from either ground level or stage deck level. On 8.235m, 10.05m and 12.2m Span Alidome structures work will also be undertaken using a mobile access tower. Step ladders would be used for access to lower levels.
			It is the site supervisors responsibility to ensure that all work is undertaken with due regard to the Work at Height Regulations.
	Incorrect erection	Rigging Crew Other Contractors Venue Staff Public	The inspection of the completed equipment by the Site supervisor shall extend to the Alidome structure  The invitation by the Site Supervisor for the client to inspect the equipment to satisfy themselves that the system is complete and as agreed shall extend to the Alidome structure.
<b>Management and use of structure</b>	Client unaware of correct use and procedures	Other Contractors Venue Staff Public	Client shall be advised that upon the completion of the Handing Over Certificate the management of the structure passes to the client.

The following pages (7 & 8) refer specifically to the Use & Management of the Alidome by the client.  
These are to be discussed on site by the Alistage Supervisor and the client.

**Alistage Ltd Combined Risk Assessment & Method Statement**  
**"Use & Management of the Alidome by the Client "**

*The Client shall receive the following written or verbal information regarding the use and management of the Alidome structure*

Activity and/or Hazard	Risk Due To	To Whom	Action or Control
<b>Management and use of structure</b>	Client unaware of correct use and procedures	Other Contractors Venue Staff Public	Client shall be advised that upon the completion of the Handing Over Certificate the management of the structure passes to the client.
<b>Weather Conditions</b>	Wind Speed	Other Contractors Venue Staff Public	Client to be advised that the covers must be removed when the wind speed increase to 32 m.p.h. (14.4m/sec) - this is gale force 6-7. (This is the wind speed that the anemometer, where supplied, has been set to).
			Client to be advised how to release and remove the roof covers.
			Client to be advised that the attachment of flagpoles and flags to the structure is not permitted
			Client to be advised that the attachment of banners must not increase the sail are of the structure and should not obscure blow out panels and door openings (that are in use) in the back.
			Client to receive copies of the following documents: "Anemometer operating instructions" "Using the Beaufort Scale to determine wind speed" "Procedure for removing and refitting Alidome covers"
<b>Securing equipment to the ground</b>	Uplift	Other Contractors Venue Staff Public	Client to be advised that where kentledge is used to secure the system against uplift that the kentledge must not be removed.
<b>Integrity of equipment</b>	Unauthorised changes	Other Contractors Venue Staff Public	Client shall be advised that no unauthorised changes are permitted to the structure
			Client to be advised that they should arrange for a competent person to inspect the structure before each day's use to ensure that the structure remains in its original "handed over" condition. The inspection should extend to check for settlement of ground.
<b>Fire</b>	Flammable materials	Other Contractors Venue Staff Public	The client shall be advised that no materials or equipment should stored beneath the stage.
			The client shall be advised that we will not have supplied fire extinguishers and reminded that smoking in temporary structures should be prohibited (Fire Prec. Para 13 & 14)
<b>Electrical power and equipment</b>	Electrocution	Other Contractors Venue Staff Public	The client shall be advised that we will not have earth bonded the stage or supplied an earth connection to ground.
<b>Use of equipment</b>	Stage overloading	Other Contractors Venue Staff Public	Client to be advised that the SWL of the stage is 5kN/m <sup>2</sup>

