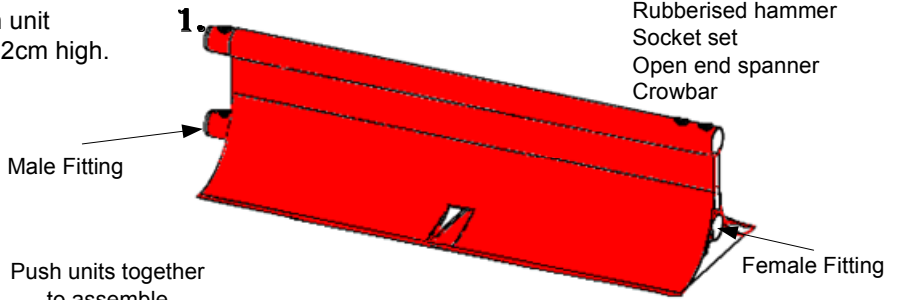
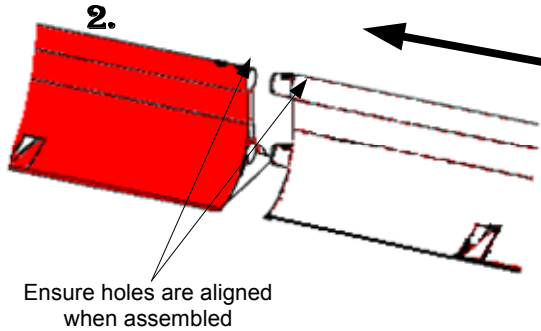


Assembly of the Multi Applicational Safety System

The MASS base unit consists of a welded steel base unit hot dip zinc galvanised and powder coated, each unit weighing approx 48 kgs 150cm X 50cm wide X 42cm high.

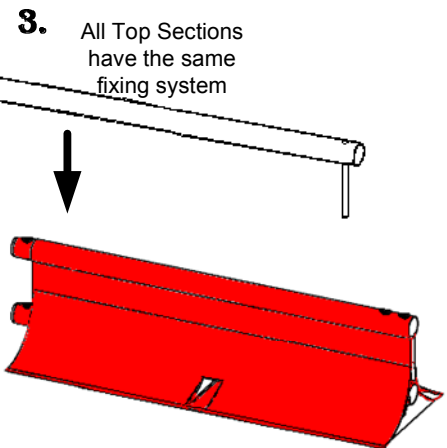
When installing the MASS barrier it is recommended the surface be as flat and even as possible. This will aid the assembly of base units and top sections.

- Required Tooling**
- Rubberised hammer
 - Socket set
 - Open end spanner
 - Crowbar



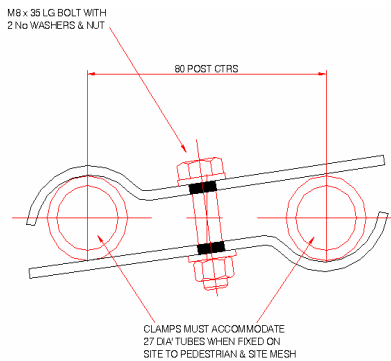
Push units together to assemble

To ensure ultimate manoeuvrability assemble four units at any time.

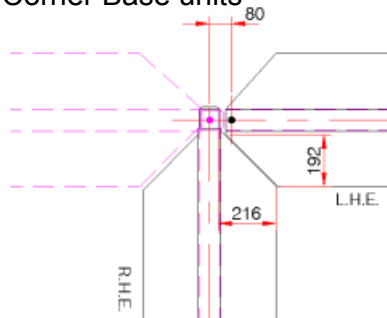


Ensure holes are aligned when assembled

5. The Clamping System



4. Corner Base units



PLAN ON MASS BASE UNITS AT 90°

Designed to allow the system to be assembled through 180 degrees. When a project requires corner units it is recommended to start the installation in the corner and work outwards.

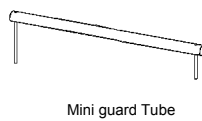
6. Top sections available

4.5kg

11Kg

11Kg

35Kg



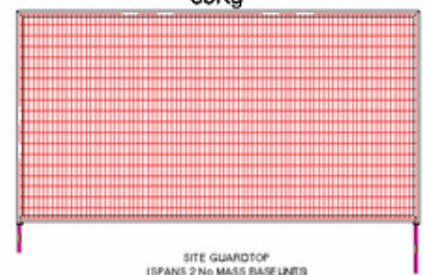
Mini guard Tube



VERTICAL



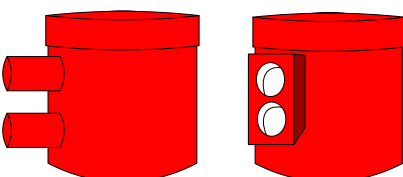
PEDESTRIAN GUARDTOP



SITE GUARDTOP (SPANS 2 No MASS BASE UNITS)

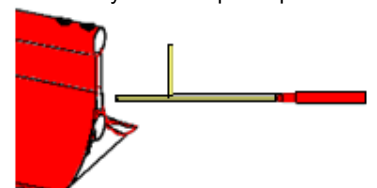
7. Buffer Ends

Cylindrical Buffer ends act as crash cushions and at the same time put a tidy finishing touch to the system



8.

Asset International have developed a bespoke manual handling device to help with the installation. Simple and easy to use one man each end of the unit can easily lift and carry to the required position



All metal parts are Zinc galvanised to maximise working life of the system. The MASS barrier is tested for vehicle containment under BS EN 1317-2:1998 unlike cones, plank systems and water filled barriers. The MASS barrier uses the weight of the vehicle to restrict the deflection of an impact.



Certificate No. FS 82117



Lift Plan Method Statement - M.A.S.S Base Unit Packs

MS No:	MASS LP1
RA No Ref:	MASS LP1
Revision	00
Date of Issue:	28/04/2014



Asset Ref:

Project:	Customer:	Date:

No:	PROCESS INSTRUCTION:	MATERIAL/EQUIPMENT/STANDARD:	REACTION PLAN:
THIS DOCUMENT IS TO BE USED IN CONJUNCTION WITH CURRENT RAMS			
1	Duties:		
	Appointed Person for Lifting:	Assess the lift operation Section of Lift Equipment & Accessories Preparation of Lift Plans, RAMS, supplementary documentation. Provision of specific documentation and briefs as required.	Review with supplier and external competent personnel
	Crane Supervisor/Lead Installer:	Preparation & briefing of the Point of Work Assessment. PoWA Ensure compliance with all lifting instruction Placement/alignment of product	Installation will only take place if Lead Installer is present, 2+ gangs will each have a designated Lead Installer/gang Ensure reporting of Accident/Incident/Near Miss to Asset International
	Slinger/Signaller:	Selection of lift accessories as per method statement Ensuring lift accessories are safe for use Attachment/detachment of load Provision of signals to lorry loader operator All Slinger/Signallers will be ALLMI trained.	Report defects to Lead Installer/Asset International No lift until slinger signals lift can be undertaken
	Lorry Loader Operator:	Setting up of the lorry loader as per employers requirements including authorisation Identification of any issues that prevent the lorry loader being set correctly Stopping any operation that exceeds the lorry loader operational parameters including specific lifting duties Operation of the lorry loader Undertaking specific safety checks, daily, weekly etc.	Inform Lead Installer of any issues relating to the crane operations Report any issues to employer
2	Lorry Loader Duties:	See Lorry Loader Lift Detail Issue 2 Stated boom lengths provide minimum lorry loader capacities for operation, i.e. boom length is not to exceed the tabulated boom lengths stated.	Do not lift in current configuration. Reduce boom length requirement.
3	PPE Requirements:	Hard Hat (EN397) Class 3 Yellow Top (EN471) Orange Trousers (EN471) Boots with Metatarsal Protection (not rigger boots) Gloves suitable for the task Eye protection, if specified by client Single Point Harness suitable for the task	Ensure requirements are met else do not work. Recovery of Slinger




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4	Point of Work Assessment, PoWA:	Client is to advise of any highway furniture that may impact on lifting. Detail to be recorded of PoWA The Lead Installer/Lorry Loader Operator will decide if the lift can be undertaken safely.	No work is to be undertaken without a PoWA Briefing.
5	Siting of the Lorry Loader:	Consideration will be given to: Surface conditions - normal operation is on asphalted highway/concrete surfacing - no grillage required. Relationship to Proximity Hazards Exposed area, in relation to environmental conditions. Work Space provision - the lead installer will cone off an appropriate area for the lifting activities.	Report issues to Lead Installer for resolution. If resolution is not possible contact Asset International for further guidance. All lift activities will cease if any person, not involved with the lift enters the coned area.
6	Slinging Equipment/Accessories:	All equipment and accessories used are to comply with LOLER'98 requirements and certificates of thorough examination are to be available at the point of work for inspection. Slinger is to inspect all accessories before use as per training.	Do not use unidentified or unsafe equipment/accessories. No equipment to be used that does not have a current Certificate of Thorough Examination present.
	Timbers (75x50x1200[approx.]mm)	To be free from cracks and splits	Replace with another timber
	Frame Stillage	To be stable with a full set of Stillage Cups (for stacking) 	Do not use if damaged. Record issue on PoWA & PoWC, also report to Bilston Office Contact (email, phone or text)
	Chains 4 Leg	Chain Specification: 8mm minimum Grade 8 Chain WLL 2t - 4 ,leg configuration 0-90°: 4.2t (ULM) 4m minimum Leg length Self Closing Safety Hooks Shortening Clutches to be present	Do not use if damaged Do not use 2 x 2-leg chains due to crowding of the hook
	Tag Lines	Ratchet Strap, minimum breaking force of 4t (4000daN) Strap/Hook to be in good condition	Replace if damaged



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7	<p>Making the Load</p> <div style="text-align: center;"> <p>Load Build Sequence</p> </div>	<p>Build the load on the stillage in 2 layers as shown below, ensure the layers are separated with 2 timbers:</p>	<p>Only load in this manner.</p>
	<p>Secure the load prior to lifting</p>	<p>Ensure the overhang of the base units is equal at each end. Secure with a single strap about the centre of the load. This is to be passed around the load and stillage base before tensioning.</p> <div style="text-align: center;"> </div>	<p>Do not lift until the pack is secure</p>
	<p>Lifting of load connection</p>	<p>Use 4-leg chain, choke chain around each leg of the stillage below the base platform.</p>	<p>Do not lift if the load is unsafe.</p>
8	<p>Proximity Hazards:</p>	<p>The client will brief during to start of shift briefing on all proximity hazards within the work area for the shift activities.</p> <p>All permits will be agreed and signed prior to commencement of works.</p> <p>Copies of permits and related documentation (i.e. STATS) will be returned to Asset International-VRS.</p>	<p>If hazards are not identified, based on PoWA findings, do not start work, report issues to Site Supervision and await resolution</p>



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	Overhead Electricity Cables	<p>Pylons - no lifting within 30m laterally (15m + 15m (boom+load)) Poles - no lifting within 24m laterally (9m + 15m (boom + load))</p> <p>The client will identify these areas in an agreed manner, i.e. blue/white cones. Within exclusion zone installations are to be made using a Sideloadng fork lift truck. Specific maximum mast heights for Sideloadng fork lift truck will be supplied by client prior to work being undertaken and will be recorded on the PoWA. This is normally -3m with reference to the minimum cable height, but must be specified by client.</p>	No work to be undertaken if the conditions are not met.
	Nearby Structures	<p>No lifting with lorry loader crane with the clients specified zone.</p> <p>Sideloadng forklift truck is to be used. If none is specified, maximum boom height is 4.5m Client to provide maximum height of boom/mast.</p> <p>Detail to be recorded on PoWA</p>	If client dose not specify a zone, no lifting with a lorry loader within 25m of each side of the structure.
	Street Furniture, i.e. matrix boards/lamp columns	<p>Client is to advise of any highway furniture that may impact on lifting. Detail to be recorded of PoWA</p> <p>The Lead Installer/Lorry Loader Operator will decide is the lift can be undertaken safely.</p>	Unload remotely and install using Sideloadng fork lift truck
	Other site activities	<p>No lift is to be undertaken if passage is required by other site activities.</p> <p>No lift is to be undertaken if any third party is in the coned off area.</p> <p><u>The crane operator will ensure the controls are isolated while slinging activities are undertaken.</u></p>	Wait until area is clear and safe.
9	Weather	<p>Tag line is to be used to control lifts.</p> <p>Use suitable communication methods, i.e. signalling rather than verbal communication, as practical.</p> <p>Only lift when personnel are in safe positions, see Varioguard MS.</p>	<p>Do not lift in unsafe conditions.</p> <p>Ensure communication system has been established, do not lift if unsure of signal.</p>



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	Wind	Wind levels are to be assessed prior to any lift. Wind is not to exceed 30mph including gusting, wind loading calculations take this into account. See Beaufort Scale below	The wind level including any gusting is to be reassessed as the work progresses and if there are any changes to local. Do not work if it unsafe to do so.

The Beaufort Scale

Scale	Force Rating	Observable Land Effects	Speed MPH
0	Calm	Vertical Smoke	1
1	Light Air	Slight smoke drift	1-3
2	Light Breeze	Leaves gently rustle	4-7
3	Gentle Breeze	Leaves and twigs move	8-12
4	Moderate Breeze	Raises paper moves small branches	13-18
5	Fresh Breeze	Sways small leafy trees	19-24
6	Strong Breeze	Sways large branches	25-31
7	Moderate Gale	Trees sway	32-38
8	Fresh Gale	Broken twigs, walking impeded	39-46
9	Strong Gale	Chimneys, slates, hoardings damaged	47-54
10	Whole Gale	Trees Blown Down and Considerable damage	55-63
11	Storm	Major Damage	64-75
12	Hurricane	Very dangerous tropical whirling winds	76+

Wind Loading -Lift SWL:

Lifts are only to be undertaken if both the slinger and the crane operator agree it is safe to undertake the lift, based on the conditions at that time and location.

Product	SWL	Comments:

Do not lift if it is unsafe to do so.

Record any changes on the PoWA



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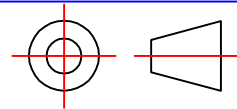


Asset Ref:

Project:	Customer:	Date:

No:	PROCESS INSTRUCTION:	MATERIAL / EQUIPMENT / STANDARD:		REACTION PLAN:
	<i>Ensure the weight of the accessories is added to the load when calculating the actual load weight.</i>	Stillage/Webbing Strap	40kg	
		Chains	45kg	
		Unit weight (including potential detritus)	60kg	
			240kg/set	
		Load Weight including Wind Factors: 325kg + 66.5kg (max wind loading) Maximum Load Weight - 391kg/lift		
8	Training:			
	Lorry Loader Operator:	CSCS ALLMI/CPCS Lorry Loader		Only use trained personnel
	Installers, including slinger	FISS/CSCS ALLMI Slinger/Signaller (mandatory from March 2014)		Only use trained personnel
9	Lifting Detail:	Data is contained on Product Lift Plan Data Sheets and Lorry Loader Detail		Only lift as per sheet

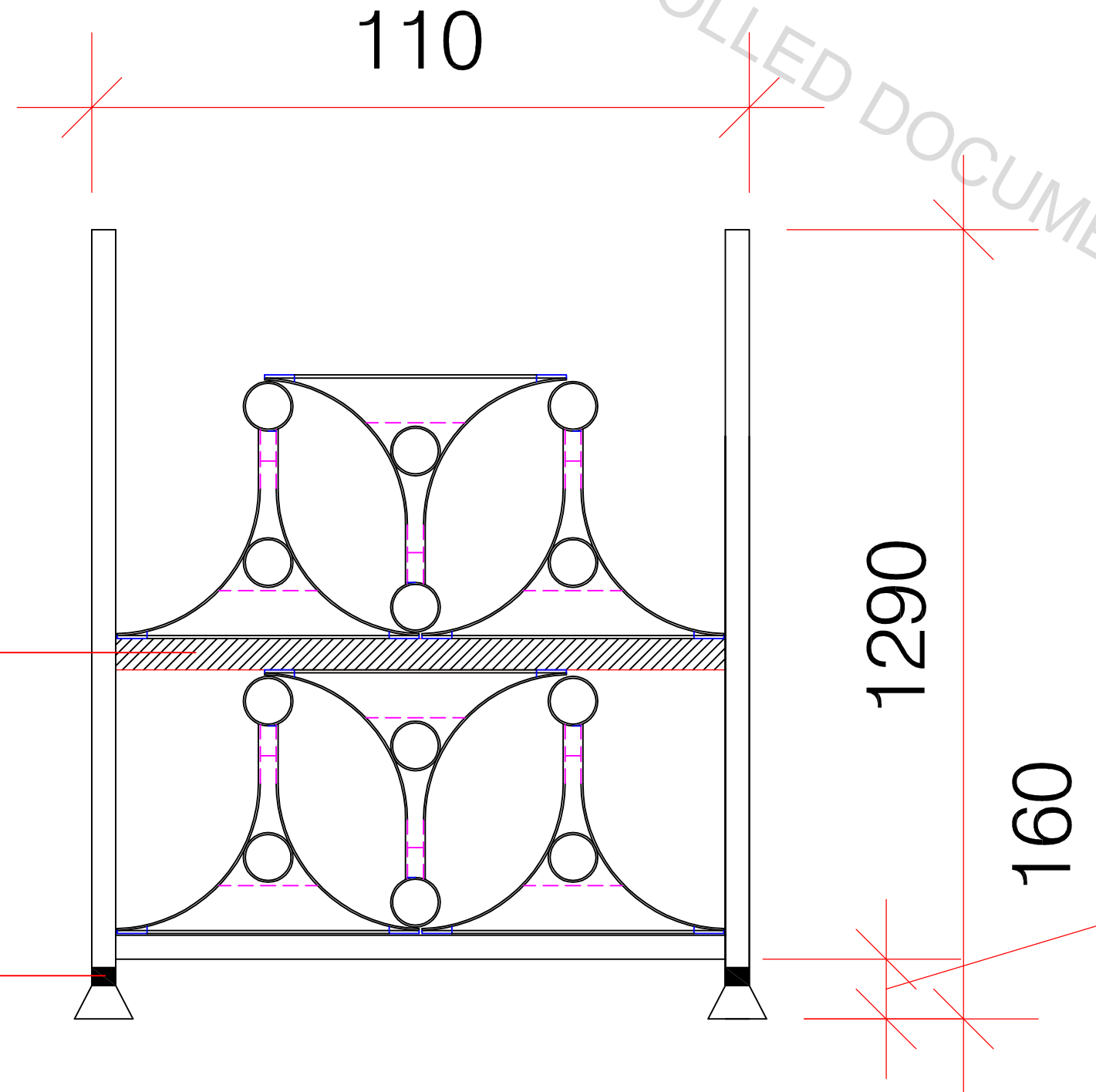
DATE	DETAIL OF CHANGE	FROM	TO	AUTHORISATION
Apr-14	New - Document is to be used until safety cloud documentation is introduced.		00	MGR
				MGR



UNCONTROLLED DOCUMENT

TIMBER BEARER

CHAINING POINTS



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NOTES:

1. All dimensions in millimetres
2. See Lift Plan Method Statement for weights
3. Only undertake lifts when it is safe to do so.
4. Crane Duties are contained on Lorry Loader Lift Detail - R5 Plan - MASS1

A	Initial Release.		18/14	MGR
Rev	Remarks	ECN	Date	Check
Drawn By	Date	Material		
Mark Reynolds	April 2014	N/A		
Scale	Finish	Weight		
Information Only	N/A	391kg max		

Description
Lift Plan Detail for Loading/Unloading of MASS Base Units (6 Pack) - 9m Set

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