

UniMat® Modular Aluminium Load Spread System

The Ultimate Manual Setup Load Spread Choice

DSM

- Purpose designed to spread outrigger / stabilizer loads for a wide range of plant and equipment
- Unrivalled flexural and compressive strength for a mat system which can be set up by hand
- A single common 500mm module width offers the ultimate in flexibility / interchangeable rig setup areas
- **Laboratory tested simulating site application to 150 Tonnes without permanent deformation ***
- **Laboratory tested compressive capacity of over 2,500 tonnes / m² of pressure ***
- **Single 1m x 500mm module loaded to 189 tonnes (limit of test rig) without permanent deformation ***
- Avoids the necessity of additional site plant to set up increased load spread areas
- Avoids the need for HGV transport to deliver / collect from site. Easily carried in box van / pickups < 3.5 tonnes
- Avoids the necessity to short rig mobile cranes on small mats to lift traditional larger mats into position
- Purpose designed to maximize site robustness and longevity in the field. The most robust of its type
- Simple abutting setup channels module weight to critical core strength & avoids maintenance issues
- Experience driven ergonomic design. Integral hand grips to each side ensure enhanced site handling
- Safety grip finish to upper and lower mat faces. Enhances purchase between mat layers and hardstanding
- High visibility fluorescent site safety detailing to reduce slips / trips and maximize visibility to site traffic



* Refer to separate Lloyds British Testing Report for further details regarding testing

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1m x 1m

2No. 1000x500x70mm Modules beneath 1 No. 1000x500x70mm Modules Above;

1.0 m²
Load Spread Area



2.0m x 2.0m

4No. 2000x500x70mm Modules beneath 2 No. 2000x500x70mm Modules Above;

4.0 m²
Load Spread Area



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Rig Options:



UniMat 2000 (M4)
2000x500x70mm
Weight 48.5 kg



UniMat 1000 (M2)
1000x500x70mm
Weight 24.5 kg

4 m² Rig 2 m x 2 m x 140 mm			
2 No. M4 over 4 No. M4			

3 m² Rig 2 m x 1.5 m x 140 mm		
2 No. M3 over 3 No. M4		

1 m² Rig	
1 m x 1 m x 140 mm	
1 No. M2	

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Standard laser cut serial number ID plates



Standard safety grip finish to upper and lower face of mats



Standard high visibility detailing



Integral ergonomic hand grip detail to both sides of mat optimizes manual handling



Optional structural foam base layer eases setup and protects your mat

UniMat® Load Spread Planning;

In planning the operations of any piece of equipment which exerts load onto the ground, it is imperative to ensure stability of the operations.

Where outriggers / stabilizers are deployed to assist with operational stability, those loads should be reviewed during planning. Any risk of overloading the ground should be addressed by improving the bearing capacity and / or utilizing load spread mats of adequate size / strength to dissipate the loads to permissible pressures.

The following table summarizes the resultant pressure reductions of the various UniMat® setups for a wide range of outrigger loads. This has been produced as an aid to those planning / reviewing load spread for site operations;

UniMat® Setup

Outrigger / Stabilizer Load	1m x 1m 1.0m²	1.5m x 1m 1.5m²	2m x 1m 2.0m²	1.5m x 1.5m 2.25m²	2m x 1.5m 3.0m²	2m x 2m 4.0m²	2.5m x 2m 5.0m²	3m x 2m 6.0m²
2 Tonnes	2.00 T / m ²	1.33 T / m ²	1.00 T / m ²	0.89 T / m ²	0.67 T / m ²	0.50 T / m ²	0.40 T / m ²	0.33 T / m ²
5 Tonnes	5.00 T / m ²	3.33 T / m ²	2.50 T / m ²	2.22 T / m ²	1.67 T / m ²	1.25 T / m ²	1.00 T / m ²	0.83 T / m ²
10 Tonnes	10.00 T / m ²	6.67 T / m ²	5.00 T / m ²	4.44 T / m ²	3.33 T / m ²	2.50 T / m ²	2.00 T / m ²	1.67 T / m ²
15 Tonnes	15.00 T / m ²	10.00 T / m ²	7.50 T / m ²	6.67 T / m ²	5.00 T / m ²	3.75 T / m ²	3.00 T / m ²	2.50 T / m ²
20 Tonnes	20.00 T / m ²	13.33 T / m ²	10.00 T / m ²	8.89 T / m ²	6.67 T / m ²	5.00 T / m ²	4.00 T / m ²	3.33 T / m ²
25 Tonnes	25.00 T / m ²	16.67 T / m ²	12.50 T / m ²	11.11 T / m ²	8.33 T / m ²	6.25 T / m ²	5.00 T / m ²	4.17 T / m ²
30 Tonnes	30.00 T / m ²	20.00 T / m ²	15.00 T / m ²	13.33 T / m ²	10.00 T / m ²	7.50 T / m ²	6.00 T / m ²	5.00 T / m ²
35 Tonnes	35.00 T / m ²	23.33 T / m ²	17.50 T / m ²	15.56 T / m ²	11.67 T / m ²	8.75 T / m ²	7.00 T / m ²	5.83 T / m ²
40 Tonnes	40.00 T / m ²	26.67 T / m ²	20.00 T / m ²	17.78 T / m ²	13.33 T / m ²	10.00 T / m ²	8.00 T / m ²	6.67 T / m ²
45 Tonnes	45.00 T / m ²	30.00 T / m ²	22.50 T / m ²	20.00 T / m ²	15.00 T / m ²	11.25 T / m ²	9.00 T / m ²	7.50 T / m ²
50 Tonnes	50.00 T / m ²	33.33 T / m ²	25.00 T / m ²	22.22 T / m ²	16.67 T / m ²	12.50 T / m ²	10.00 T / m ²	8.33 T / m ²
55 Tonnes	55.00 T / m ²	36.67 T / m ²	27.50 T / m ²	24.44 T / m ²	18.33 T / m ²	13.75 T / m ²	11.00 T / m ²	9.17 T / m ²
60 Tonnes	60.00 T / m ²	40.00 T / m ²	30.00 T / m ²	26.67 T / m ²	20.00 T / m ²	15.00 T / m ²	12.00 T / m ²	10.00 T / m ²
65 Tonnes	65.00 T / m ²	43.33 T / m ²	32.50 T / m ²	28.89 T / m ²	21.67 T / m ²	16.25 T / m ²	13.00 T / m ²	10.83 T / m ²
70 Tonnes	70.00 T / m ²	46.67 T / m ²	35.00 T / m ²	31.11 T / m ²	23.33 T / m ²	17.50 T / m ²	14.00 T / m ²	11.67 T / m ²
75 Tonnes	75.00 T / m ²	50.00 T / m ²	37.50 T / m ²	33.33 T / m ²	25.00 T / m ²	18.75 T / m ²	15.00 T / m ²	12.50 T / m ²
80 Tonnes	80.00 T / m ²	53.33 T / m ²	40.00 T / m ²	35.56 T / m ²	26.67 T / m ²	20.00 T / m ²	16.00 T / m ²	13.33 T / m ²
85 Tonnes	85.00 T / m ²	56.67 T / m ²	42.50 T / m ²	37.78 T / m ²	28.33 T / m ²	21.25 T / m ²	17.00 T / m ²	14.17 T / m ²
90 Tonnes	90.00 T / m ²	60.00 T / m ²	45.00 T / m ²	40.00 T / m ²	30.00 T / m ²	22.50 T / m ²	18.00 T / m ²	15.00 T / m ²
95 Tonnes	95.00 T / m ²	63.33 T / m ²	47.50 T / m ²	42.22 T / m ²	31.67 T / m ²	23.75 T / m ²	19.00 T / m ²	15.83 T / m ²
100 Tonnes	100.0 T / m ²	66.67 T / m ²	50.00 T / m ²	44.44 T / m ²	33.33 T / m ²	25.00 T / m ²	20.00 T / m ²	16.67 T / m ²

Please note the above table assumes a simplistic approach to load spread... i.e. load divided by load spread area.

We have an in depth structural datasheet for the UniMat® section available on request. This will aid the temporary works engineer to satisfy themselves of the suitability for the specific ground conditions on the site.

We offer a free load spread review service / advice for project specifics. Where a definitive permissible bearing capacity has not been provided, we can offer comprehensive temporary works designs for your operations.

