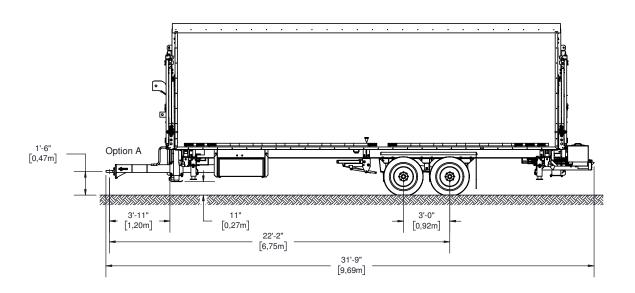
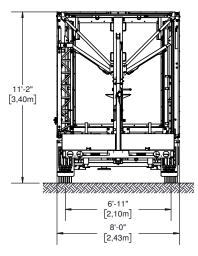
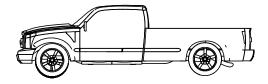


# SL100 TECHNICAL DRAWINGS 2019

## **Trailer Hitch Option A**Drawbar / Pintle Eye



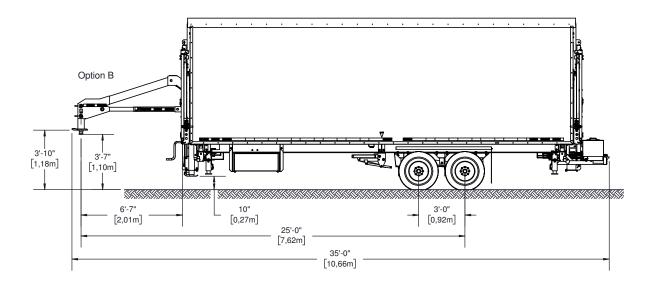


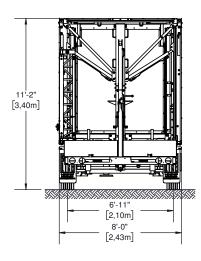


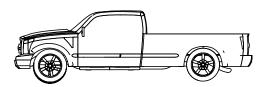
Mass SL100	Unla	aden	Standard E	Equipment	Maximum Capacity			
IVIdSS 3L100	Lbs	Kg	Lbs	Kg	Lbs	Kg		
Total Mass	9460	4290	11682	5298	15000	6804		
Mass on Axle	8159	3700	10295	4669	14000	6350		
Mass on Hitch	1301	590	1387	627	3750	1701		



## Trailer Hitch Option B KingPin / Fifth Wheel

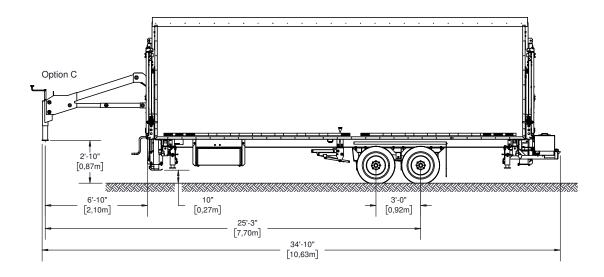


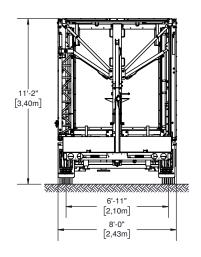


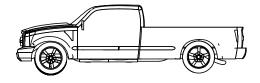


Mass SL100	Unla	den	Standard E	quipment	Maximum	n Capacity
IVIASS SETOO	Lbs	Kg	Lbs	Kg	Lbs	Kg
Total Mass	9460	4290	11682	5298	15000	6804
Mass on Axle	8159	3700	10295	4669	14000	6350
Mass on Hitch	1301	590	1387	627	3750	1701

#### Trailer Hitch Option C Gooseneck / Ball Hitch

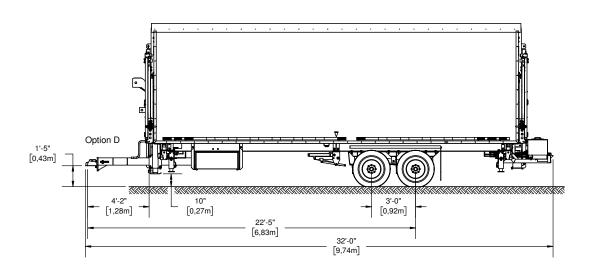


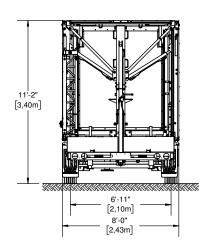


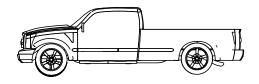


Mass SL100	Unla	aden	Standard E	quipment	Maximum Capacity			
IVIdSS SL100	Lbs	Kg	Lbs	Kg	Lbs	Kg		
Total Mass	9460	4290	11682	5298	15000	6804		
Mass on Axle	8159	3700	10295	4669	14000	6350		
Mass on Hitch	1301	590	1387	627	3750	1701		

## Trailer Hitch Option D Drawbar / Ball Coupler 2 5/16"

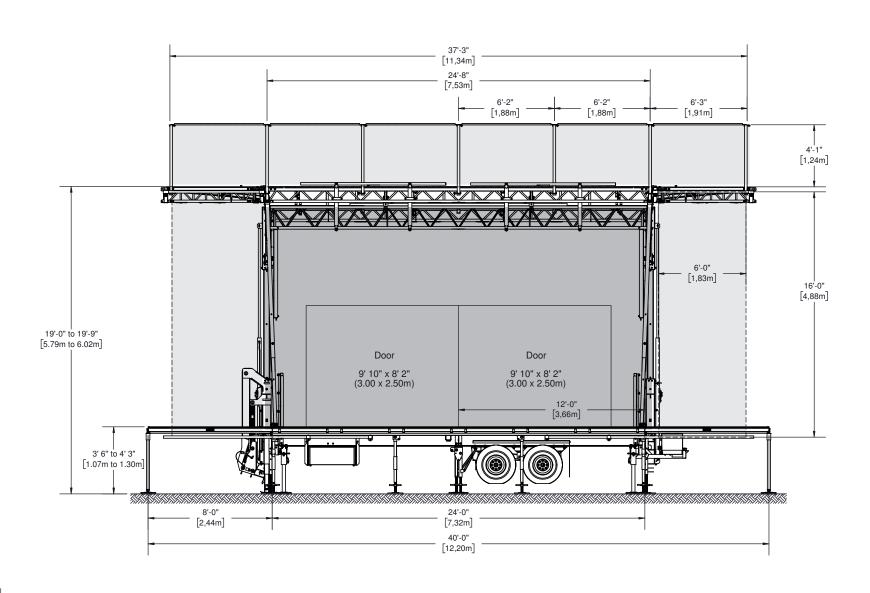






Mass SL100	Unla	aden	Standard E	quipment	Maximum Capacity			
IVIASS SETOO	Lbs	Kg	Lbs	Kg	Lbs	Kg		
Total Mass	9460	4290	11682	5298	15000	6804		
Mass on Axle	8159	3700	10295	4669	14000	6350		
Mass on Hitch	1301	590	1387	627	3750	1701		





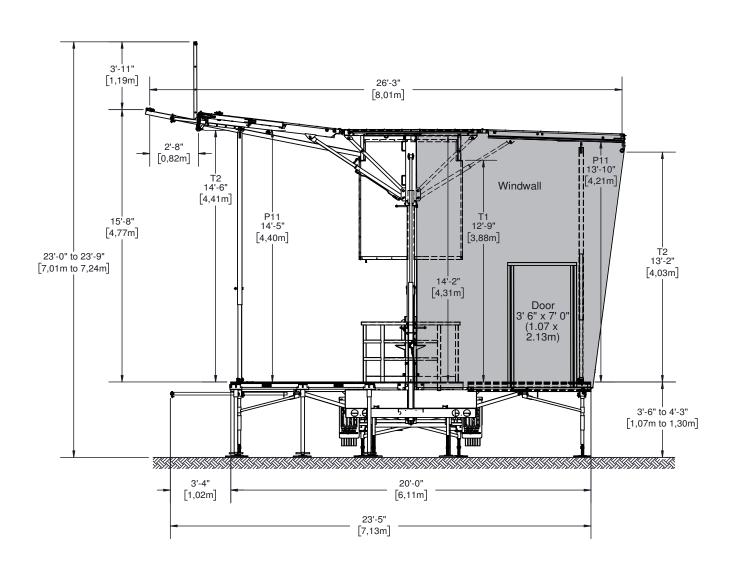
WINDWALL

notice. Figures are nominal.

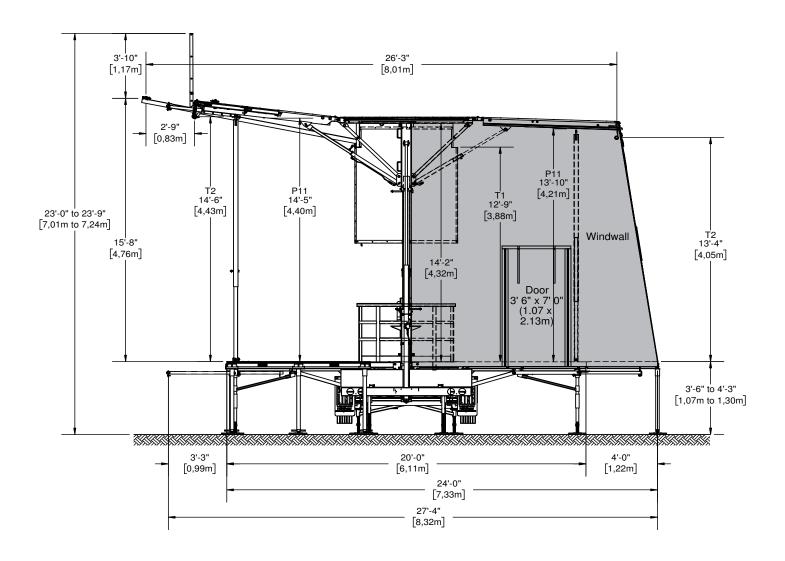
BANNER (For dimensions, please refer to Banner Book)

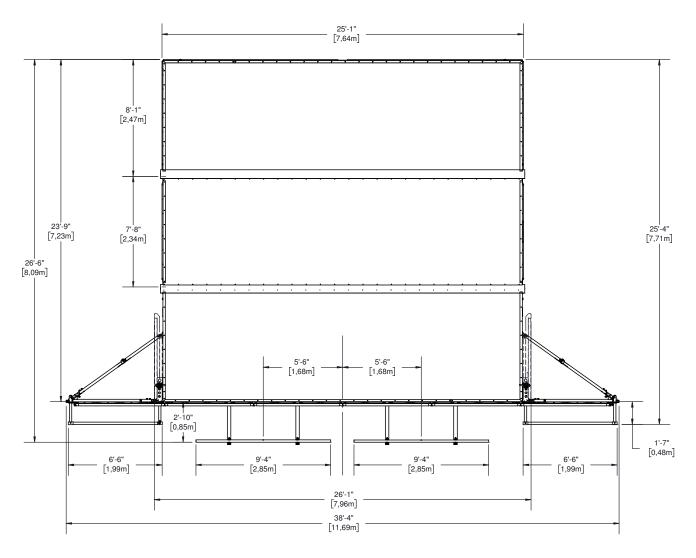
© 2019 - All rights reserved, Stageline Mobile Stage Inc. Any and all forms of adaptation or reproduction of this document including the plans and drawings, in whole or in part, are strictly forbidden without the written authorisation of Stageline Mobile Stage Inc. Mass may vary depending on options. Technical specifications may change without notice. Stage specifications are subject to change without



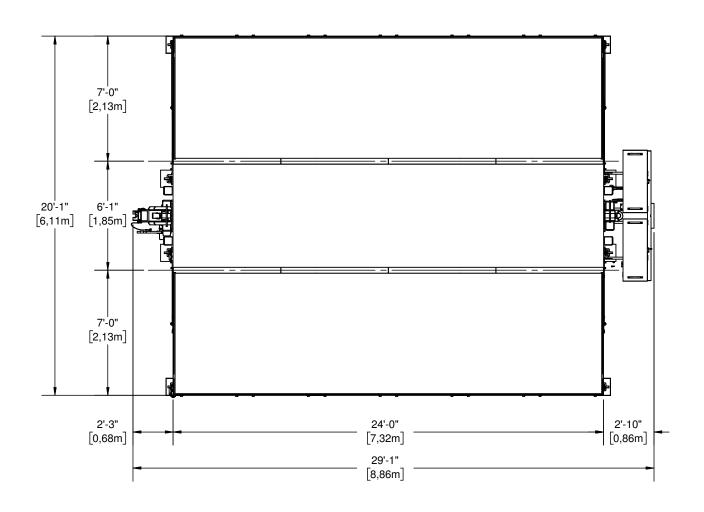






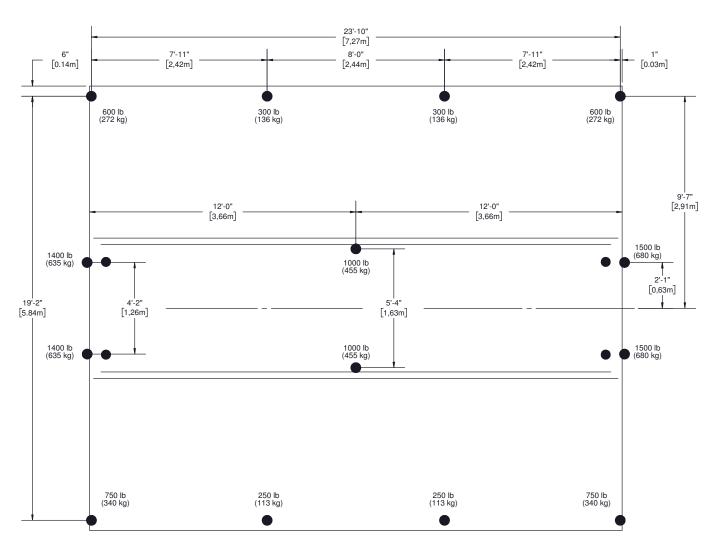


DOWNSTAGE



CAPACITY: 150lbs/ft² (732kg/m²)

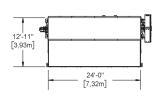


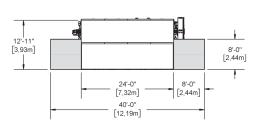


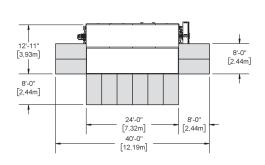
DOWNSTAGE

## **EXTENSION PLATFORM LAYOUTS**

## Bandshell Configurations\*



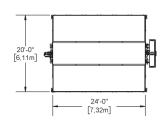


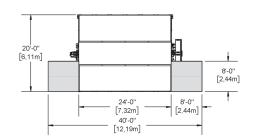


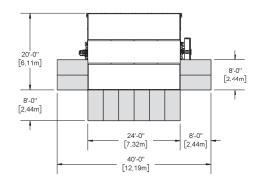
<sup>\*</sup> Bandshell configuration requires that stringent instructions be followed. <u>For reference only.</u>

Drawings may show stage equipped with optional accessories. May be sold separately.

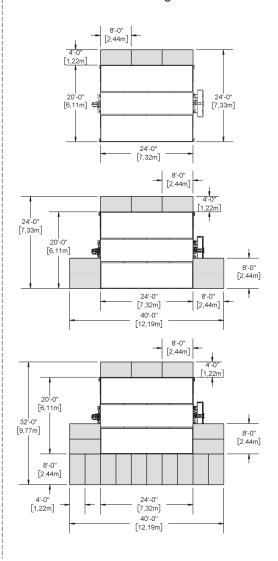
## **Standard Configurations**







## **Extended Configurations**



PLATFORM

# A THOROUGH UNDERSTANDING OF THE INTER-RELATED LOADINGS SHOWN IN THIS RIGGING PLAN IS NEEDED IN ORDER TO SAFELY USE THIS MOBILE STAGE ROOF AND TAKE FULL ADVANTAGE OF THE MANY RIGGING OPPORTUNITIES IT OFFERS.

This mobile stage roof offers a variety of rigging options with regard to load capacity, placement and type.

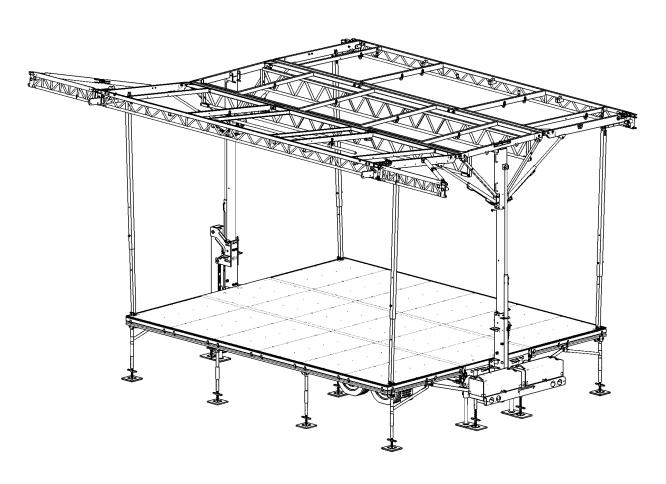
There are rigging pipes, trusses, roof rigging points and side overhang rigging beams.

This rigging plan locates and defines these rigging features, includes load capacity for each and describes maximum combinations of loads amongst features.

Take note of exclusions, maximum sub-totals in a group, load balance requirements, maximum lifting capacity of roof and maximum rigging load on roof.

The maximum load on the roof is less than the sum of the maximum load on each rigging feature.

Refer to Operator's Manual for procedures in regards to proper setup and setup methods of the stage and its options.



The information contained in the current document is final and must be considered as such. They are derived from design briefs and summarized to help the user plan rigging configurations safely. It is therefore mandatory that the user follows and respects the capabilities and limitations described herein. Overloading of stage components above their specified capacity may result in structural failure, equipment damage, injury or death. Stageline cannot be held responsible if the user, himself or subcontractors under his supervision, derogate from this document and/or the approved rigging plan. If a desired configuration cannot meet these requirements, the user must contact Stageline to analyse the case and obtain further instructions. Special restrictions and limitations may apply.

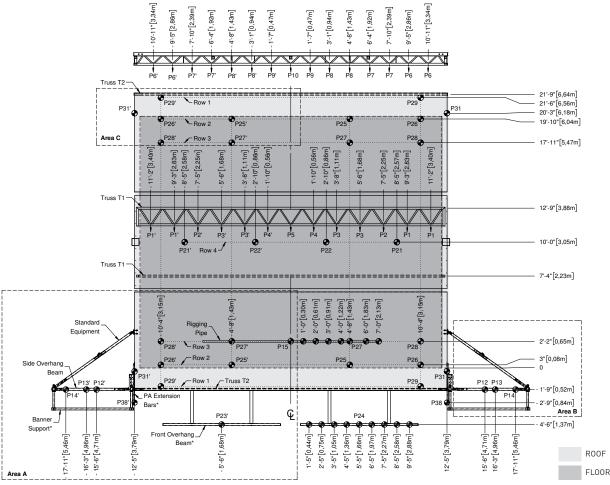
Certain authorities may require that a rig configuration plan, signed and sealed by a recognized member of a professional body, be available to allow the stage to be setup on their territory. This document was not intended to and cannot be used or considered as an official document or certificate to serve this purpose. Contact responsible authorities or Stageline for details.

tech\_drawings-v-SL100-002-2019

# RIGGING PLAN 2/7 STANDARD CONFIGURATION

## RIGGING RESTRICTIONS

- MAXIMUM LOAD BEARING CAPACITY: 11 400 lb (5170 kg).
   All corner posts must be installed and pinned, and telescopic columns pinned and secured.
- MAXIMUM ALLOWABLE LOAD PER AREA:
  - Area A is 2000 lb (907 kg).
  - Area B is 1500 lb (680 kg).
  - Area C is 2200 lb (998 kg).
- For the downstage or the upstage roof panels, if any of the P25 to P29 points are used to their maximum capacity, no other points or T2 truss can be used. If the T2 truss is used to its maximum capacity, no other points P25 to P29 can be used.
- Only use points in ROW 1, or points in ROW 2, or points in ROW 3 or Truss T2. Do not use rows or T2 truss simultaneously.
- Loads applied to each Rows must be calculated as if there were a truss.
- Maximum of 350 lb (159 kg) can be loaded at any place along each Front Overhang Beam (P23) between supports. T2 capacity must take into account these loads.
- Load any number of P24 on Front Overhang Beams symmetrically, at positions shown on diagram, or use P23. T2 capacity must take into account these loads.
- Do not load more than 250 lb (115 kg) on roof panel when corner posts are replaced by cylinder locks. Do not install banners when corner posts are replaced by cylinder locks.
- Load any number of P15s on Rigging Pipe, symmetrically, at positions shown on diagram, or use P27s.
- Always load the roof symmetrically from the centerline. For atypical load configurations, contact Stageline.
- T1 trusses must take into account loads from points P21 and P22.
   Consider a 50% load transfer on each truss.
- Points P31 can't be used when P38 is used.
- Use P38's capacity anywhere along the PA Extension Bars\*.



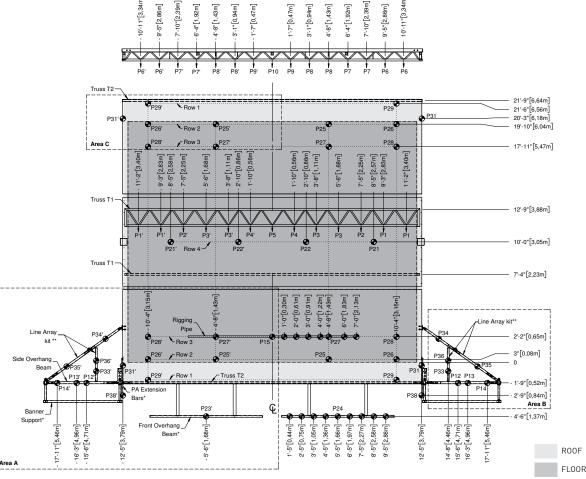
									MAXIMUM LOAD CAPACITY														
Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg			
P1, P2, P3	750	340	P8	750	340	P13	800	363	P22	1200	544	P26	1200	544	P34*	750	340	P38*	1000	454			
P4, P5	600	272	P9	600	272	P14	400	181	P23*	350	159	P27, P28	600	272	P35*	750	340						
P6,	1200	544	P10	1000	454	P15	30	13	P24*	40	18	P29	1200	544	P36*	750	340						
P7	1000	454	P12	1500	680	P21	1500	680	P25	1000	454	P31, P32*, P33*	1500	680	P37*	750	340						

<sup>\*</sup> Optional items, see stage specifications.

## RIGGING PLAN 3/7 OPTIONAL LINE ARRAY SYSTEM

## RIGGING RESTRICTIONS

- MAXIMUM LOAD BEARING CAPACITY: 11 400 lb (5170 kg). All corner posts must be installed and pinned, and telescopic columns pinned and secured.
- Rigging on points P32 to P37 is allowed only with optional Line Array kit (refer to page 15 for details).
- MAXIMUM ALLOWABLE LOAD PER AREA: Area A is 2000 lb (907 kg).
  - Area B is 1500 lb (680 kg).
  - Area C is 2200 lb (998 kg).
- For the downstage or the upstage roof panels, if any of the P25 to P29 points are used
  to their maximum capacity, no other points or T2 truss can be used. If the T2 truss is
  used to its maximum capacity, no other points P25 to P29 can be used.
- Only use points in ROW 1, or points in ROW 2, or points in ROW 3 or Truss T2.
   Do not use rows or T2 truss simultaneously.
- Loads applied to each Rows must be calculated as if there were a truss.
- Maximum of 350 lb (159 kg) can be loaded at any place along each Front Overhang Beam (P23) between supports. T2 capacity must take into account these loads.
- Load any number of P24 on Front Overhang Beams symmetrically, at positions shown on diagram, or use P23. T2 capacity must take into account these loads.
- Do not load more than 250 lb (115 kg) on roof panel when corner posts are replaced by cylinder locks Do not install banners when corner posts are replaced by cylinder locks.
- Load any number of P15s on Rigging Pipe, symmetrically, at positions shown on diagram, or use P27s.
- Always load the roof symmetrically from the centerline. For atypical load configurations, contact Stageline.
- T1 trusses must take into account loads from points P21 and P22.Consider a 50% load transfer on each truss.
- If optional Line Array kit is used, capacity of point P13 can be increased to 1000 lb (454 kg) and capacity of point P14 can be increased to 750 lb (340 kg).
- Points P31 can't be used when P38 is used.
- Use P38's capacity anywhere along the PA Extension Bars\*.



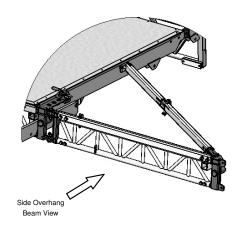
									MAXIMU	M LOAD	CAPACI	TY								
Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg
P1, P2, P3	750	340	P8	750	340	P13+	1000	454	P22	1200	544	P26	1200	544	P34*	750	340	P38*	1000	454
P4, P5	600	272	P9	600	272	P14+	750	340	P23*	350	159	P27, P28	600	272	P35*	750	340			
P6,	1200	544	P10	1000	454	P15	30	13	P24*	40	18	P29	1200	544	P36*	750	340			
P7	1000	454	P12	1500	680	P21	1500	680	P25	1000	454	P31, P32*, P33*	1500	680	P37*	750	340			

<sup>\*</sup> Optional items, see stage specifications.

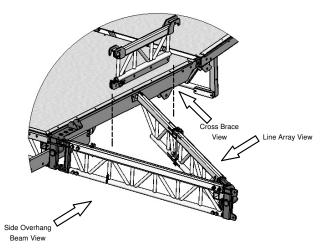
<sup>\*\*</sup> Line Array kit includes a rear ladder truss (zones P34 and P35) and a cross brace (points P32, P33, P36 and P37) on both sides of the stage.

## RIGGING RESTRICTIONS

- Rigging on points P32 to P37 is allowed only with optional Line Array kit.
- Capacity of points P12 to P14 must take into account loads on points P32 to P37.
- If maximum capacity of either P12 to P14 or P32 to P37 is used, no other loads can be applied to Side Overhang Beam.
- If optional Line Array kit is used, capacity of point P13 can be increased to 1000 lb (454 kg) and capacity of point P14 can be increased to 750 lb (340 kg).
- To take into account wind loads from the banners, remove 200 lb [91 kg] from the capacity of points P12 and P14.
- Loads on the Side Overhang Beams must be planned in the same manner as the trusses.
- Capacity of points P12, P13, P14, P34 and P35 must take into account loads from points P32, P33, P36 and P37. Refer to LOAD DISTRIBUTION RATIO grid for details.
- MAXIMUM ALLOWABLE LOAD for points P33 and P34 and P35 and P36 and P37 is 750 lb (340 kg).

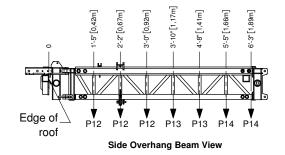


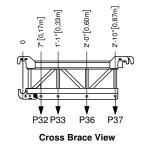
Standard Lateral Sound Structure

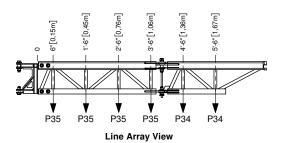


Optional Line Array Structure

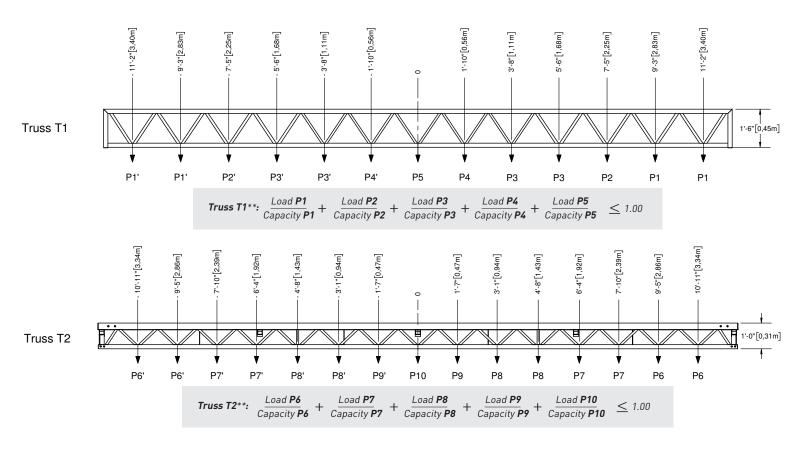
LOAD DISTRIBUTION RATIO												
Point No.	Side overhang beam	Line array										
P32	82%	18%										
P33	65%	35%										
P36	37%	63%										
P37	8%	92%										











UDL C	HART	
		50%
62	%	19%
37%	37%	13%
	62	62%

									МА	XIMUM	LOAD C	APACITY								
Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg
P1, P2, P3	750	340	P8	750	340	P13	800	363	P15	30	13	P24*	40	18	P29	1200	544	P38*	1000	454
P4, P5	600	272	P9	600	272	P13+	1000	454	P21	1500	680	P25	1000	454	P31, P32*, P33*	1500	680			
P6,	1200	544	P10	1000	454	P14	400	181	P22	1200	544	P26	1200	544	P34*, P35*, P36*, P37*	750	340			
P7	1000	454	P12	1500	680	P14+	750	340	P23*	350	159	P27, P28	600	272	P37*	750	340			

<sup>\*</sup> Optional items, see stage specifications.

<sup>\*\*</sup> Valid for symmetric loads only. In other cases, contact Stageline for assistance.

## LIFTING RESTRICTIONS

- MAXIMUM ROOF LIFTING CAPACITY: 3800 lb (1725 kg)
- Maximum asymmetric load difference between downstage and upstage roof must not exceed 1550 lb (705 kg) including loads on T1 trusses.
- When lifting, make sure loads are evenly divided between right and left side of roof.
- Maximum lifting weight per group:

-Group 1: 1550 lb (705 kg)

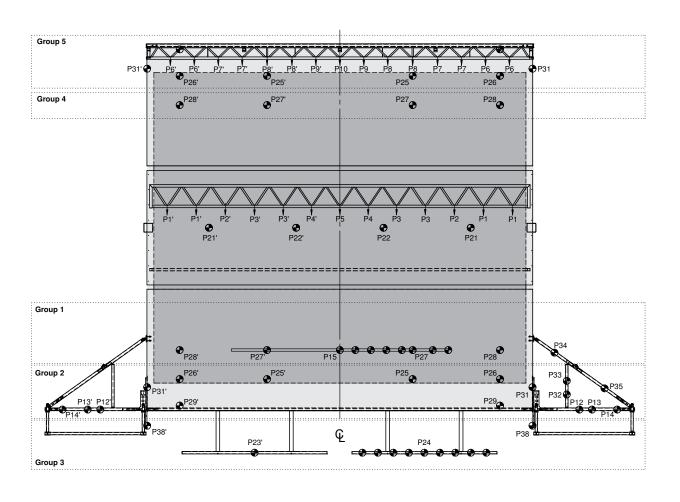
-Group 2: 800 lb (363 kg)

-Group 3: 550 lb (249 kg)

-Group 4: 1550 lb (705 kg)

-Group 5: 800 lb (363 kg)

 When lifting, only use one group on the downstage roof panel and/ or one group on the upstage roof panel.



ROOF FLOOR

<sup>\*</sup> Optional items, see stage specifications.

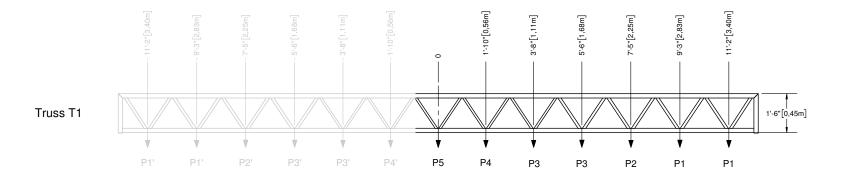


## WHEN CALCULATING THE LOAD ON A SL 100 TRUSS, USE FOLLOWING METHOD.

Each truss in the roof must be visualized as 2 trusses put together that share a center point, which in the following example is the P5.

Example: T1 on a SL100.

Points from left to right are P1', P2', P3', P4', P5, P4, P3, P2, P1. We will only verify loads on 1 side of the truss, Meaning P1 thru P5.



#### **CALCULATION EXAMPLE #1:**

1 lighting truss on 2 motors, total uniformly distributed weight of the truss is 1000 lbs.

The motors will be hung from P1.

- 500lbs (50% of weight, see UDL chart) / 750 (the capacity of the P1 on the T1 truss) = 0.67
- 0.67 = 67%, as 1.00 would equal 100 %.

So the T1 truss is at 67 % of its total capacity.

#### **CALCULATION EXAMPLE #2:**

1 lighting truss on 3 motors, total uniformly distributed weight of the truss is 1000 lbs.

The motors will be hung from P1, P5, P1.

- P1

0.19 x 1000 (19% of weight, see UDL chart) / 750 (P1) = 0.25, so this one point will use 25 % of the truss capacity.

- P5

 $0.62 \times 1000$  (62% of weight, see UDL chart) / 600 (P5) = 1.03, so this one point will use 103 % of the truss capacity.

Now that we have the loads for both points, we add them together to determine the total load on the truss.

0.25 + 1.03 = 1.28

So the T1 truss is at 128 % of its total capacity, which is overloaded.

#### **CALCULATION EXAMPLE #3:**

1 lighting truss on 4 motors, total uniformly distributed weight of the truss is 1000lbs.

The motors will be hung from P1, P3, P3, P1.

- P1

 $0.13 \times 1000$  (13% of weight, see UDL chart) / 750 (P1) = 0.17, so this one point will use 17 % of the truss capacity.

- P3

 $0.37 \times 1000$  (37% of weight, see UDL chart) / 750 (P3) = 0.49, so this one point will use 49 % of the truss capacity.

Now that we have the loads for both points, we add them together to determine the total load on the truss.

0.17 + 0.49 = 0.66

So the T1 truss is at 66 % of its total capacity.