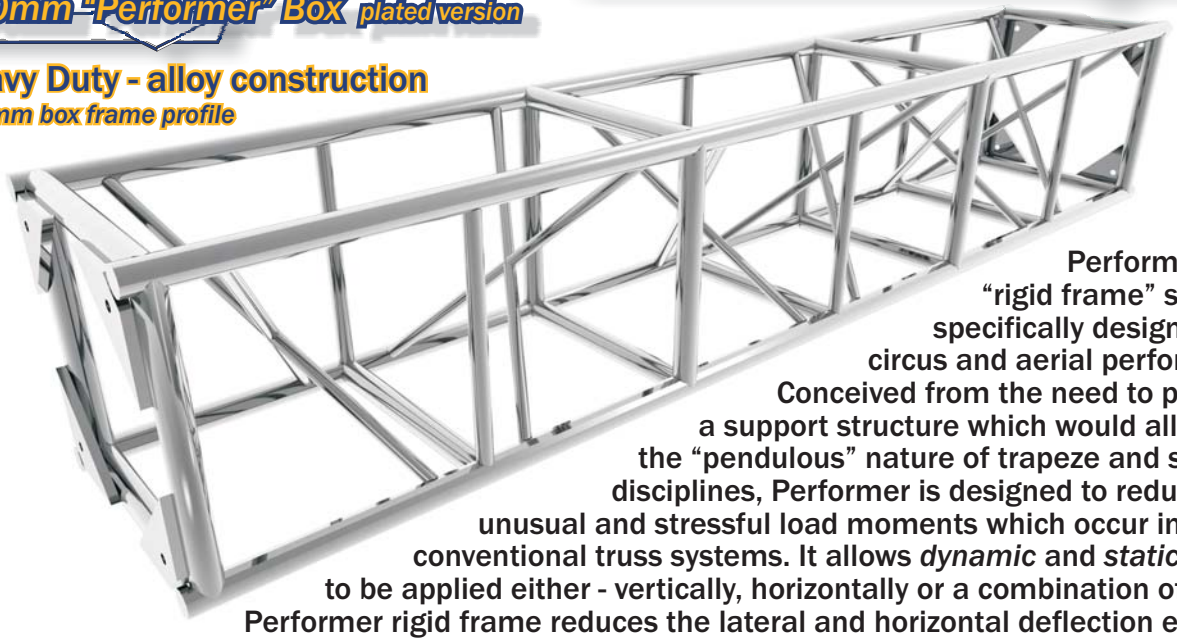
BROWN'S PRECISION WELDING

Load Data & Graphs

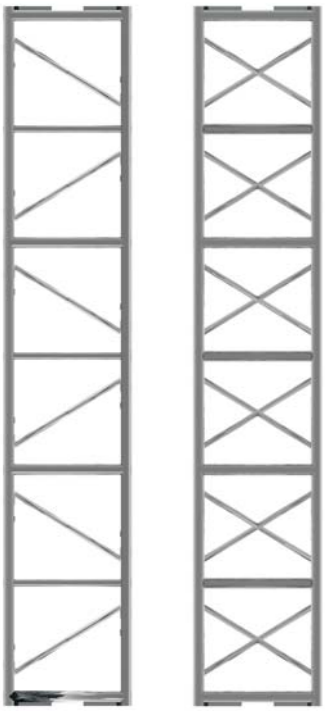
500mm "Performer" Box *plated version*

Heavy Duty - alloy construction

500mm box frame profile



Performer is a "rigid frame" system specifically designed for circus and aerial performers. Conceived from the need to provide a support structure which would allow for the "pendulous" nature of trapeze and similar disciplines, Performer is designed to reduce the unusual and stressful load moments which occur in more conventional truss systems. It allows *dynamic* and *static* loads to be applied either - vertically, horizontally or a combination of both. Performer rigid frame reduces the lateral and horizontal deflection evident in conventional beam design, resulting in a safer, stiffer and more responsive structure.
*SWL's have been calculated for dynamic and static loads and have a safety factor of 5:1
All load data derived from calculations based on a 3 metre length.



main chords & 90 deg. bracing: 48.5 x 4.5mm aluminium alloy
secondary 90 deg. bracing: 32 x 3mm aluminium alloy
internal diagonal bracing: 25 x 3mm aluminium alloy
Connection via: M16 x 55mm gr8.8 bolt sets through triangular gusset plates

	max. Allowable DYNAMIC/STATIC uniform loads		max. allowable DYNAMIC/STATIC point loads		
			Centre point	Third point	Quarter point
SPAN in metres	LOAD kg/metre	LOAD kg	LOAD kg	LOAD kg	LOAD kg
3	250	750	750	375	250
6	116	700	700	350	233
9	72	650	650	325	216
12	50	600	600	300	200
15	33	500	500	250	166
18	22	400	400	200	133

M16 x 55 grade 8.8 zinc plated boltsets. (bolt/nut/2 washers) through 16mm gusset plates

Data used in this chart prepared from independent calculations produced by:
A. F. Colafella & Associates *structural & civil engineers.*
All computations and computer analysis carried out in accordance with AS/NZS-1665 (Aluminium Structures code)
All fabrication in accordance with AS/NZS - 1665 (Aluminium Structures code). Fabricated by fully certified welders.
Proposed loads & rigging method should be referred to and verified by a site engineer and/or a fully certified rigger
All points should be installed by a certified rigger. Loads have been calculated for INDOOR USE ONLY
ie NO WINDLOADS are considered, and assume a minimum of two lifting points: ie one at each end of the overall span.

METAL FABRICATION FOR THE ENTERTAINMENT INDUSTRY

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