Suppliers of Frames

Finish profiles	SADTEC CONSTRUCOES DO BRASIL LTDA	Vega Construction
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For more information on portal frames and how to Engineer, Design and Erect along with holding down details, connection details and any other queries please feel free to contact the practice:

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We can be contacted at the office—Tel . (+44) 1423 855 939 or mobile 07901594342

MMCEngineer have engineered and designed Portal Frames in Brazil, Portugal, Russia, Afghanistan and India to both British and European Standards and can talk you though the required details.

Common questions & answers:

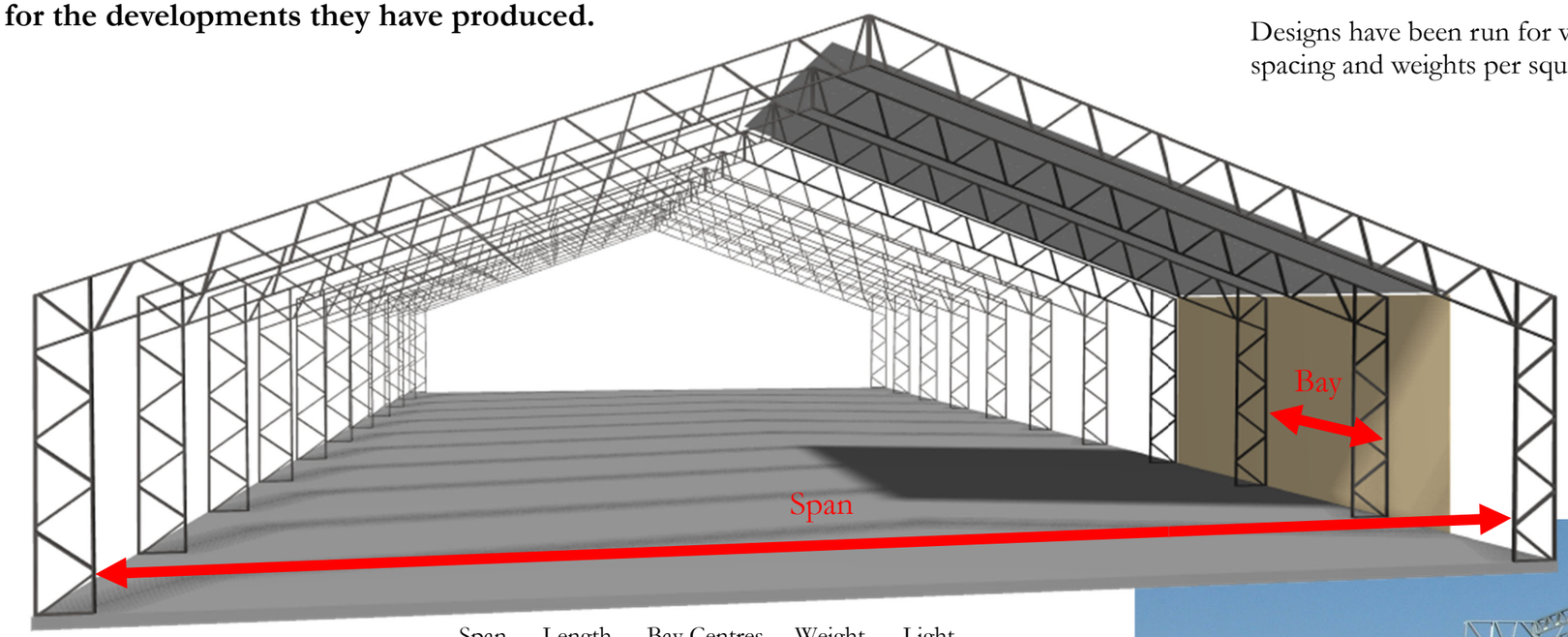
- Yes, they are continuous frames.
- Yes they may appear difficult to transport and erect, but we have solutions!
- Yes they do need 'plating' and have multiple fixings at the ends of the diagonals, but they are repetitive and easy to detail and check on site.
- Yes, the weights per square metre are correct
- Yes, we can use other profiles
- Yes we can 'do' wider bays and spans

MMCEngineer Ltd
Structural and Civil Engineers

Light Gauge Steel Portal Frame

Load Span Tables

The portal frames are ideal for such uses as **'Industrial Starter Units', Super-market Extensions, Farm Buildings, Aircraft hangers. Many clients have used the sheds as 'temporary factories' and then left as Community Centers for the developments they have produced.**



	Span (m)	Length (m)	Bay Centres (m)	Weight (Kg)	Light Gauge Kg / m2
15m span, 6m Eaves	15	116	5.7	300.4	3.5
20m span, 6m Eaves	20	160	4.5	414.4	4.6
15m span, 8m Eaves	15	135	3.9	349.7	6.0
20m span, 8m Eaves	20	154	4.1	398.9	4.9
25m span, 8m Eaves	25	170	4	440.3	4.4
30m span. 8m Eaves	30	238	3.8	616.4	5.4

As well as lightweight structures, and reduced tonnage for the overall structure the 'knock on effect' is lighter, cheaper foundations as well as being quicker in site, and finished quicker so they start earning sooner! The table below shows the difference in column sizes and the table above shows the weight saving's using a Light Gauge Steel Solution

	HR Colum width (mm)	LGS Column Width (mm)
15m span, 6m Eaves	356 x 171	1200 x 100
20m span, 6m Eaves	457 x 191	1600 x 100
15m span, 8m Eaves	533 x 210	1200 x 100
20m span, 8m Eaves	533 x 210	1600 x 100
25m span, 8m Eaves	533 x 210	1900 x 100
30m span. 8m Eaves	610 x 229	2300 x 100

The essence of the designs is that rather than use solid hot rolled sections rafters are assembled from sections of light gauge steel into lattice trusses or 'scissor frames' as shown in the image below.

Designs have been run for various span and eaves combinations and the resulting span, bay spacing and weights per square meter for plan footprint of building are tabulated below.

Span Table for frames are based on 100 x 1.6 g profile to BRITISH STANDARDS as an example ONLY. Other standards and profiles will work.

Please contact us for project specific details and to discuss your requirements—info@mmcengineer.com or (+44)1 423 855939 or visit www.mmcengineer.com

Mongilia Mine Camp

HPT HEMSEC PANEL TECHNOLOGIES

			HPT EXTERNAL										
			UDL (kN/M2) Span L in Metres										
Span Conditions	Panel Thickness	Load Type	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8
Single Span - External Sheet 0.5mm Steel Internal Sheet 0.5mm Steel	50	Pressure/Suction	1.38	0.94	0.64								
	100	Pressure/Suction	3.47	2.56	1.95	1.54	1.25	1.01	0.87				
	125	Pressure/Suction	4.37	3.2	2.45	1.94	1.54	1.31	1.09	0.95	0.8		
	150	Pressure/Suction	5.24	3.86	2.95	2.34	1.89	1.59	1.31	1.12	0.96	0.84	
	175	Pressure/Suction	6.12	4.51	3.44	2.73	2.2	1.82	1.53	1.28	1.12	0.98	0.86
	200	Pressure/Suction	7	5.15	3.94	3.11	2.52	2.08	1.76	1.49	1.28	1.12	0.98

Table above is from Hemsec Insulated Panels (www.hemsec.com) and shows that cladding rails and purlins are not needed so the weights of the structure tabulated are ALL that is required. Please contact Hemsec direct for details or refer to the Hemsec LongClad brochure for more details.