

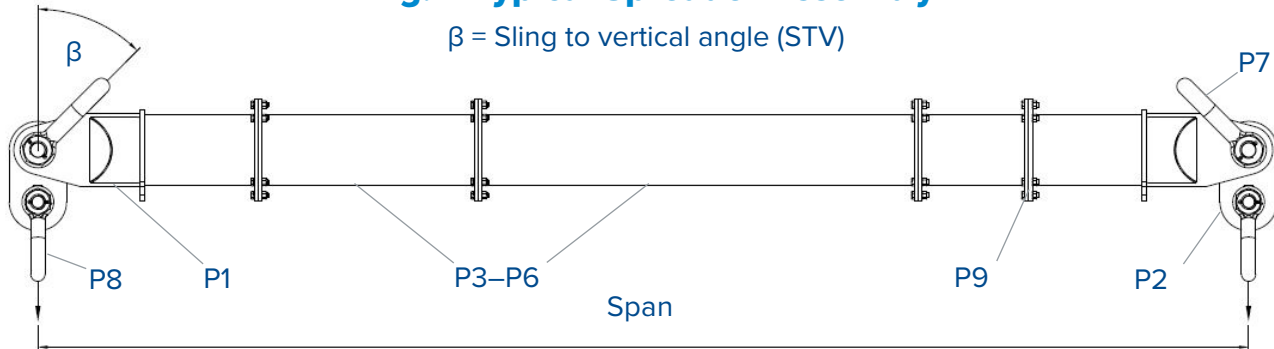
User Instructions

MOD 110

Modulift
by pewag

The Modulift Spreader is modular in length, and every spreader consists of 1 pair of End Units and Drop Links, with intermediate struts that can be bolted into the assembly to achieve different spans. The MOD 110 has an assembled span ranging from 2m to 18m in 0.5m increments.

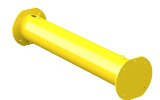
Fig.1 Typical Spreader Assembly



End Unit



Drop Link



Strut

MOD 110 Beam Specification

- Rated at 110 tonnes WLL at 14 metres span. (30° STV). See Load Table for WLL at longer spans.
- 'Sling to Vertical' angle, β , 45 degrees or less.
- End Units & Drop Links are rated at 55 tonnes WLL each (110 tonnes combined capacity).
- Bolt tightening torque: 150Nm.** Spanner size required: 30mm.
- Recommended additional equipment: Torque Wrench, Podger Spanner and Ring Spanner.

Table 1 – Component List

Part Ref.	Description	Weight/item
P1	End Unit (1m)	178 kg
P2	Drop Link	45 kg
P3	4.0m Strut	367 kg
P4	2.0m Strut	212 kg
P5	1.0m Strut	134 kg
P6	0.5m Strut	96 kg
P7	85t pewag Shackle	62.4 kg
P8	55t pewag Shackle	40.5 kg
P9	M20 x 65, Grade 8.8, HT Bolts, Nuts & Washers	



WARNING!

- Personnel using this system should be suitably trained, competent and have a clear understanding of Safe Slinging procedures, see Modulift assembly and setup procedure
- The use of Modulift equipment must be in accordance with the procedures laid down in 'Lifting Operations and Lifting Equipment Regulations 1998' (LOLER)
- Never exceed stated WLL** – Adhere to WLL in **Table 2** for particular sling angle used
- The top sling length is critical to the safe use of the spreader** – Adhere to **Table 2**
- Ensure Drop Links hang down, and smaller shackles are connected to bottom hole of Drop Link.
- Do not under any circumstances hang load(s) from the tube or flanges** – the spreader is designed for axial compression, not bending.

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MOD 110



Assembly Procedure

1. Check the ID plates on each Modulift component to ensure the correct size is used.
2. Lay out the Struts and End Units in the correct configuration (see **Table 2**), laid on flats to prevent rolling.
3. Check that all pairs of flanges are clear from debris, sand etc before connection.
4. Bolt the components together using bolts, nuts and washers provided. Tighten the bolts to a torque shown overleaf, 6 bolts per connection. The number and grade of bolts is crucial for safe use of the spreader, particularly at longer spans.
5. Place drop link inside the jaw of an end unit, with the larger hole of the drop link lined up with the end unit hole.
6. Place a top sling onto the body of a top shackle, and put the jaw of top shackle over the end unit jaw.
7. Put top shackle pin through shackle, end unit jaw and drop link, and repeat for other spreader beam end.
8. Attach free ends of top slings to crane hook.
9. Attach lower slings and shackles to lower holes of drop links, and attach them to the load to be lifted.
10. The assembled spreader and lifting rig must be thoroughly checked by a competent person prior to lifting.

Do's & Don'ts

- Do ensure to load the spreader through the drop links only. i.e. adhere to **Fig. 1**.
- Do keep the loaded spreader clear of obstacles - any contact could cause beam failure.
- Do ensure correct use of appropriate top slings, do not twist any slings unnecessarily.
- Do not hang any load from the spreader tube or flanges.
- Do not exceed stated WLL for that particular span - adhere to **Table 2**.
- Do not rig lower slings more than 6 degrees from vertical.
- When moving or positioning long struts or assemblies, use tag lines to control movement.
- Individual components can be heavy and extreme care must be taken if manual handling.

Recommended Top Sling Types

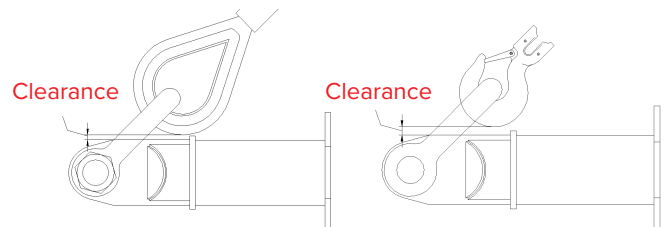
Textile slings, wire rope slings with soft eyes and chain slings with small end fittings. If thimble eyes are used with wire rope slings, make sure sling angle is 30 degrees or less. Other types exist but not all are suitable due to end fitting size, particularly larger capacity chain hook and thimble eyes. **Note:** Lengthening the slings can give greater clearance. Refer to Modulift supplier if in doubt.

Table 2 – Load v Span

Span (m)	STV 45°		STV 30°		STV 20°		Recommended Configuration EU - End Unit (1m)									
	WLL (t)	Min. top sling length (m)	WLL (t)	Min. top sling length (m)	WLL (t)	Min. top sling length (m)										
2.0	110	1.1	110	1.7	110	2.6	EU	EU								
2.5	110	1.4	110	2.2	110	3.3	EU	0.5	EU							
3.0	110	1.8	110	2.7	110	4.1	EU	1	EU							
3.5	110	2.2	110	3.2	110	4.8	EU	1	0.5	EU						
4.0	110	2.5	110	3.7	110	5.5	EU	2	EU							
4.5	110	2.9	110	4.2	110	6.3	EU	2	0.5	EU						
5.0	110	3.2	110	4.7	110	7.0	EU	2	1	EU						
5.5	110	3.6	110	5.2	110	7.7	EU	0.5	2	1	EU					
6.0	110	3.9	110	5.7	110	8.5	EU	2	2	EU						
6.5	110	4.3	110	6.2	110	9.2	EU	2	2	0.5	EU					
7.0	110	4.6	110	6.7	110	9.9	EU	2	2	1	EU					
7.5	110	5.0	110	7.2	110	10.6	EU	0.5	2	2	1	EU				
8.0	110	5.3	110	7.7	110	11.4	EU	2	2	2	EU					
8.5	110	5.7	110	8.2	110	12.1	EU	0.5	2	2	2	EU				
9.0	110	6.0	110	8.7	110	12.8	EU	2	2	2	1	EU				
9.5	110	6.4	110	9.2	110	13.6	EU	0.5	1	4	2	EU				
10.0	110	6.8	110	9.7	110	14.3	EU	4	4	EU						
10.5	110	7.1	110	10.2	110	15.0	EU	4	4	0.5	EU					
11.0	107	7.5	110	10.7	110	15.8	EU	4	4	1	EU					
11.5	98	7.8	110	11.2	110	16.5	EU	0.5	4	4	1	EU				
12.0	91	8.2	110	11.7	110	17.2	EU	2	4	4	EU					
12.5	84	8.5	110	12.2	110	18.0	EU	2	4	4	0.5	EU				
13.0	78	8.9	110	12.7	110	18.7	EU	2	4	4	1	EU				
13.5	72	9.2	110	13.2	110	19.4	EU	2	4	4	1	0.5	EU			
14.0	67	9.6	110	13.7	110	20.1	EU	4	4	4	EU					
14.5	61	9.9	108	14.2	110	20.9	EU	0.5	4	4	4	EU				
15.0	57	10.3	100	14.7	110	21.6	EU	4	4	4	1	EU				
15.5	52	10.6	92	15.2	110	22.3	EU	0.5	4	4	4	1	EU			
16.0	48	11.0	85	15.7	110	23.1	EU	4	4	4	2	EU				
16.5	44	11.3	79	16.2	110	23.8	EU	4	4	4	2	0.5	EU			
17.0	41	11.7	73	16.7	110	24.5	EU	4	4	4	2	1	EU			
17.5	38	12.1	67	17.2	108	25.3	EU	4	4	4	2	1	0.5	EU		
18.0	35	12.4	60	17.7	101	26.0	EU	4	4	4	4	EU				



WARNING!



- The rigger must ensure that there is a clearance between the sling end fitting and the end unit as shown above.
- Max. number of struts allowed in spreader assembly: 6
- Assemble longer struts in the centre of the spreader configuration.
- Sling angle is crucial to safe use of spreader.

