User Instructions
CMOD 50: 6-Point Frame

Modulift®
working between the hook and the load

The CMOD 6-Point Spreader Frame is modular in span and every frame consists of 4 Corner Units and 2 T-pieces, with intermediate Struts that can be bolted into the assembly to achieve different spans. CMOD 50: 6-Point Frame has an assembled span up to 13m x 11m.

Assembled Frame

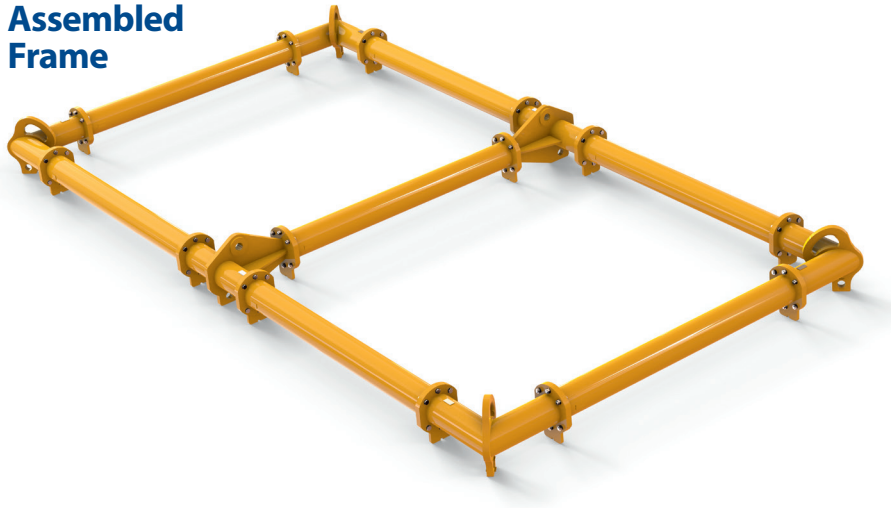
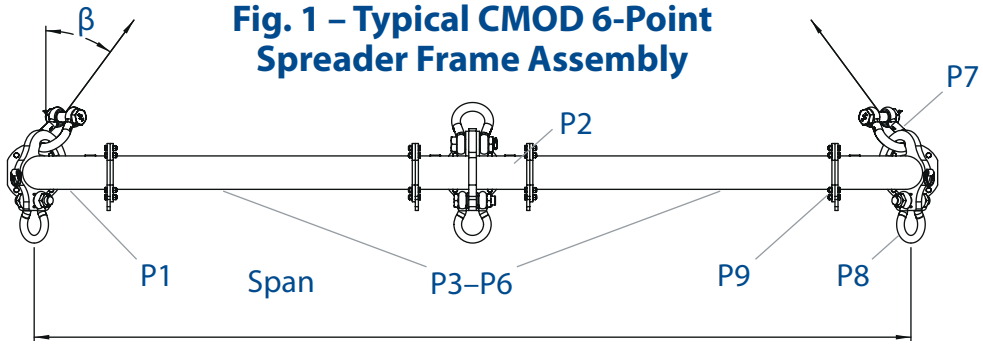
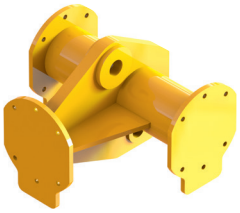


Fig. 1 – Typical CMOD 6-Point Spreader Frame Assembly

β = Sling to vertical angle (STV)



T-piece



Strut

Corner Unit

CMOD 50: 6-Point Frame Specification

- Rated at a maximum of 60 tonnes WLL. Please see **Table 2** for WLL at specific spans.
- 'Sling to Vertical' angle, β, 45 degrees or less.
- Corner Units and T-Pieces rated at 15 tonnes WLL each (60 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	Corner Unit (length 0.5m each)	90kg
P2	T-Piece (length 0.75 x 0.5m each)	175kg
P3	4.0m Strut	140kg
P4	2.0m Strut	82kg
P5	1.0m Strut	53kg
P6	0.5m Strut	38kg
P7	35t Shackle	20kg
P8	25t Shackle	14kg
P9	M20 x 65, Grade 8.8, HT Bolts, Nuts & Washers	

User Instructions
CMOD 50: 6-Point Frame

Modulift®
working between the hook and the load

⚠ WARNING!

- Personnel using this system should be suitably trained, competent and have a clear understanding of Safe Slinging procedures.
- 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 frame** – ensure you refer to the correct table.
- Do not under any circumstances hang load(s) from the tube or flanges – the Spreader Frame is designed for compression – not bending.
- Ensure that the top Shackle contacts the bow of the corner plate 'bow-to-bow'.
- The CMOD system is designed in accordance with BS EN13155: Cranes, Safety, Non- fixed Load Lifting Attachments.
- **Max number of Struts: 5 per side on the span without T-Piece, 8 per side on span with T-Piece.**
- **All Corner Units and T-Pieces must be connected to crane hook using top slings, and to the load using bottom slings.**
- **All slings must be correctly loaded i.e. no sling (top or bottom) to be slack at any point during lift.**
- **Sling angle is crucial to the safe use of the frame.**
- **The top sling/turnbuckle must be positioned centrally in the Shackle pin to ensure even loading. Contact your Modulift supplier for supply of loose spacers where required.**
- **T-Pieces must be located opposite each other and must connect to struts.**

Table 2 – Load v Span

First pick the overall span required for your frame (e.g. 1m x 2m) and the Sling Angle (we recommend 30° STV where possible), then check the WLL via the appropriate table. Read the table by locating the lower span on the y axis of the chart and the larger on the x. The cell which you are referred to, will indicate the WLL for your chosen span. If your exact span is not noted in the table, then please round up or down to the values that will give you the lowest WLL (to ensure no overloads are applied). Please contact Modulift for confirmation on your WLL if required. WLL given in tonnes.

CMOD 50: 6-Point Frame WLL / tonnes @ 30° STV

Side without T-Piece	2	3	4	5	6	7	8	9	10	11	12	13
11										50	43	32
10									50	50	41	31
9								60	50	50	39	29
8							60	60	50	48	37	28
7						60	60	60	50	45	35	27
6					60	60	60	60	50	43	33	26
5				60	60	60	60	60	50	40	32	25
4			60	60	60	60	60	50	49	38	31	24
3		60	60	60	60	60	60	50	47	37	30	23
2	60	60	60	60	60	60	60	50	45	36	29	23
1	60	60	60	60	60	60	60	50	44	35	28	22

Span (m)

Side with T-Piece

CMOD 50: 6-Point Frame WLL / tonnes @ 45° STV

Side without T-Piece	2	3	4	5	6	7	8	9	10	11	12	13
11										28	24	18
10									28	28	23	17
9								34	28	28	21	16
8							40	34	28	27	20	15
7						40	40	34	28	25	19	14
6					50	40	40	34	28	24	18	14
5				50	50	40	40	34	28	23	17	13
4			50	50	50	40	40	28	28	21	17	13
3		50	50	50	50	40	40	28	26	21	16	12
2	50	50	50	50	50	40	34	28	28	20	16	12
1	50	50	50	50	50	40	34	28	25	20	15	12

Span (m)

Side with T-Piece

User Instructions
CMOD 50: 6-Point Frame

Modulift®
working between the hook and the load

Do's & Don'ts

- Do ensure enough clearance between frame and the load to prevent the load hitting the frame. Any collision could cause failure of the frame.
- Do not exceed the individual WLL of any Corner Unit or T-Piece taking into account CoG offsets.
- The frame is designed to lift a single solid item using 6 points of the frame.
- To ensure no slings are slack, use turnbuckles on the central top slings, use matching top slings for the corners, and matching bottom slings all round. For offset CoGs, or where loads have different spans to the frame, more turnbuckles will be required for the top and/or bottom slings. Turnbuckles must be adjusted until all slings are in tension. Contact Modulift for advice if in doubt.
- Ensure that **Fig.2** is checked and followed.
- When connecting Corner Units directly to T Pieces i.e. no struts between these components, assembly may be difficult due to fabrication tolerances. Please contact Modulift for advice.
- Do not hang any loads from the Strut tube or flanges.
- Do not exceed the stated WLL for your span.
- Do not rig the lower slings more than 6° from vertical.

Assembly Procedure

- Check the ID plates on each Modulift component to ensure the correct size is used.
- Lay out the Struts, T-Pieces and Corner Units in the correct configuration.
- Check all flanges are clear from debris, sand etc. before connection.
- Bolt the components together* using bolts, nuts & washers provided. Tighten the bolts to torque as shown overleaf.
- Loop the top Shackles through the bows of the Corner Units so they contact 'bow-to-bow'. The eye of the top slings can then be passed through the jaws of the Shackles and the pins replaced.
- Loop the top Shackles through the remaining top slings and connect Shackles to the top of the T-Pieces.
- Loop the bottom Shackles through the eyes of the drop slings and connect to the bottom of the Corner Units and T-Pieces with the Shackle pins.
- Attach the lower slings to the load to be lifted.
- The assembled Spreader Frame and lifting rig must be thoroughly checked by a competent person prior to lifting.

*The use of a Podger Spanner will aid in assembly by helping to align the bolt holes by forcing it through.

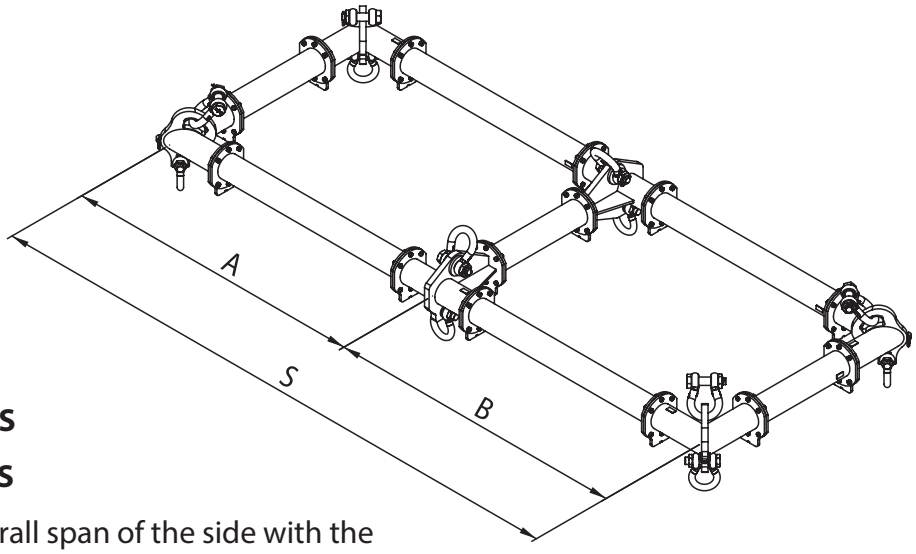


Fig. 2

25% S < A < 75% S

25% S < B < 75% S

Where S is the overall span of the side with the T-Piece, and A & B are intermediate lengths.

CMOD 50: 6-Point UK FEB 2023
© Copyright 2023 Modulift.
All rights reserved.

Should you find your equipment is no longer of use, please dispose of in a responsible manner. Please contact Modulift if you need further guidance

Modulift UK Ltd **tel:** +44(0)1202 621511 **email:** sales@modulift.com **www.modulift.com**