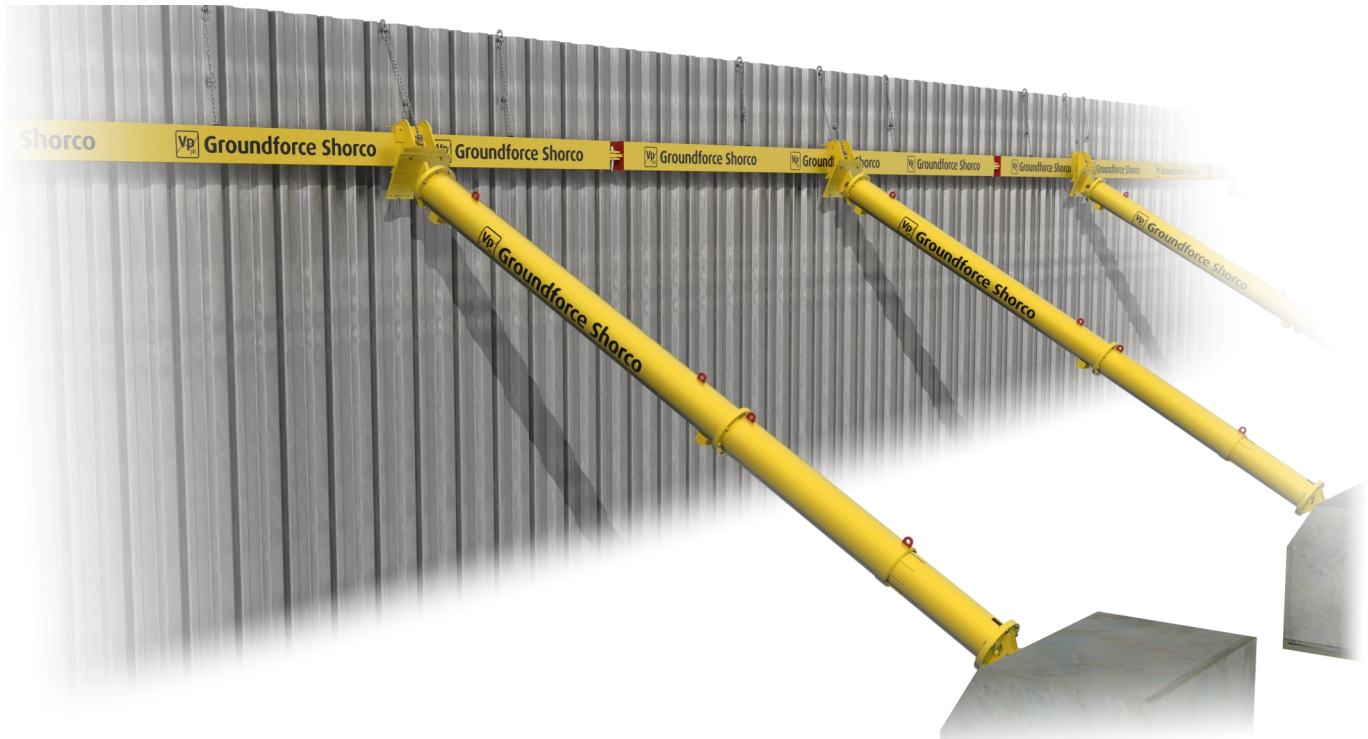


## Raking Strut Adapters



### Important Notes

All excavation work must be thoroughly planned before work commences on site to identify hazards and assess risk.

These instructions form guidance for Raking Strut Adapters. Non-standard applications should be approved by a suitably qualified engineer.

Ensure all personnel engaged in excavation operations are properly briefed and adequately supervised by a competent person.

**THIS USER GUIDE IS NOT CONTROLLED WHEN PRINTED**

You can access this User Guide to [download as a pdf](#) from the Groundforce Technical Library.

**IF IN ANY DOUBT SEEK FURTHER ADVICE:  
ON FREEPHONE - 0800 000 345**










Rev	Date	Comments	Initial
1.4	29/08/23	MP125 removed	DSW

## SAFETY

### Common Symbols and Meanings

**Safety Note:** It is recommended that hand and eye protection are used when operating hydraulic equipment.

PERSONAL PROTECTIVE EQUIPMENT (PPE)	
	Use eye protection
	Use hearing protection
	Wear protective gloves
	Wear head protection
	Wear protective footwear

WARNING SYMBOLS	
	General warning
	Crushing of hands

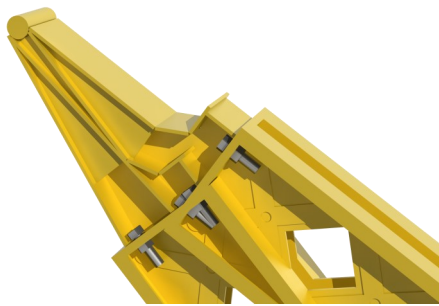
## Introduction

For raking strut applications, it is necessary to use bespoke strut end adaptors in lieu of the standard end bearing plates to enable the range of struts to connect safely and effectively to standard waling beams.

There are three types of Raking Strut Adapter which permit various strut/waling combinations. Raking Strut Adapters are designed to allow efficient load transfer, distribution and line of thrust into the waling beam without risk of failure by overturning. It will however be necessary to provide some form of uplift restraint to the waling beam itself.

The correct fixing arrangement and location will be in accordance with an accompanying approved scheme specific design and drawing.

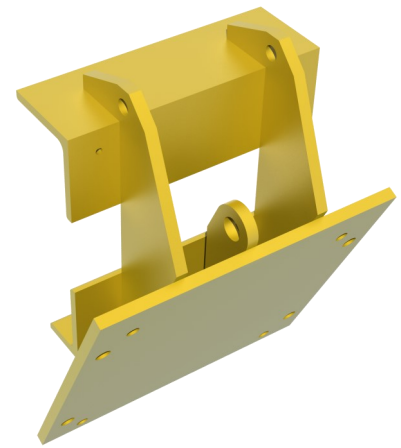
## Equipment Specification



**MP30 Adapter**



**Mega / MP150  
Adapter (Weight: 180kg)**



**Mega / Maxi / MP50, MP60  
Adapter (Weight: 100kg)**

## General Information

**MP30 Adapter:** To be used in conjunction with the MP30 Mechanical Strut.

**Mega Brace / MP150 Adapter:** To be used in conjunction with either the Mega Brace or the MP150 hydraulic strut.

**Maxi Brace / MP50, MP60 Adapter:** To be used in conjunction with Maxi Brace, Mega Brace and either the mechanical MP60 or the MP50 hydraulic strut.

### Points for Consideration:

- Uplift of the system (to be provided independently)
- Cleats attached to the pile wall bearing on the top of the Waler Beam
- Keying of the Waler Beam into the wall
- Securing the raking strut adapter to the wall
- Tying the raking strut adapter to an anchorage at the base of the wall
- A combination of the above

## MP30 Adapter



**Safety Notes:** Extreme care and adequate precautions must be taken to prevent trapping fingers during all stages of work.



1. Offer the adapter to the beam at the location specified by design.
2. Excavate to the required depth to install the beam as necessary, ensuring that additional depth has been allowed locally for the adapter.
3. Position the hanging chains for the MP30 as specified in the MP30 user guide.
4. Raise the beam into the correct position against the sheet pile wall, supported on brackets.
5. Secure the beam assembly to the sheet piled wall to counteract uplift and/or rotation, in accordance with design information.
6. Connect the strut to specified position on the adapter.
7. Connect a Restraint Chain to each strut.
8. Secure the opposite end of the strut to the pre-pared foundation (e.g. Thrust block).



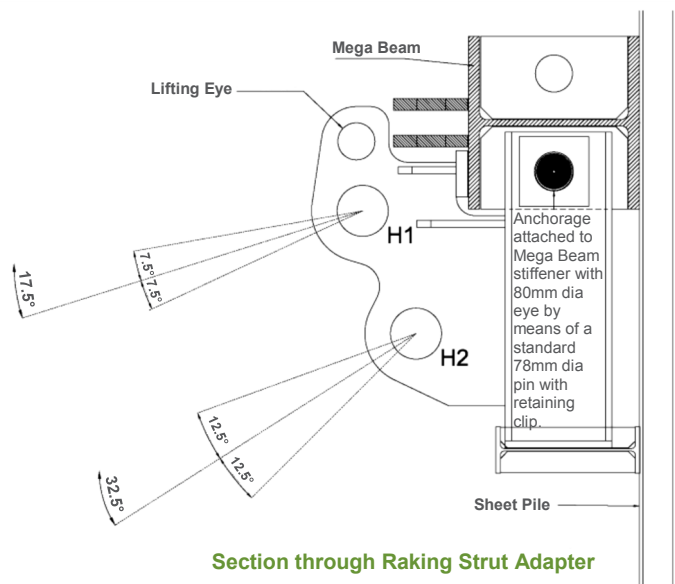
## Mega / MP150 Adapter



**Safety Notes:** Extreme care and adequate precautions must be taken to prevent trapping fingers during all stages of work.



1. Offer the adapter to the appropriate stiffener location along the beam and connect the adapter to the beam using the 78mm diameter pin provided; secure with an 'R' clip.
2. Excavate to the required depth to install the beam as necessary, ensuring that additional depth has been allowed locally for the adapter.
3. Position the hanging chains for the Mega Beam as specified in the Mega Brace Installation Instructions.
4. Raise the beam into the correct position against the sheet pile wall, supported on brackets.
5. Secure the beam assembly to the sheet piled wall to counteract uplift and/or rotate, in accordance with design information.



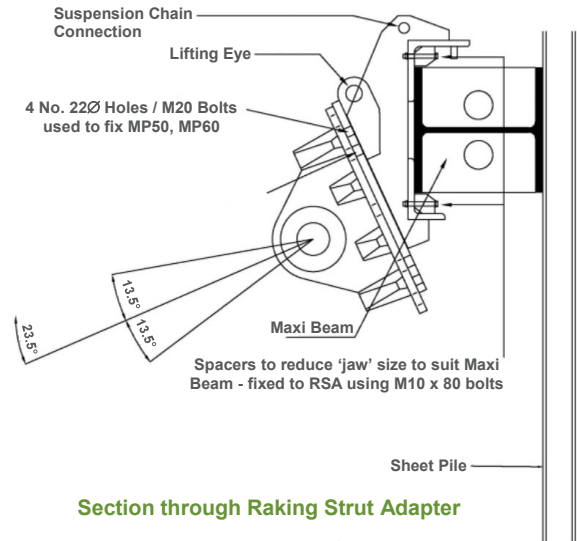
Section through Raking Strut Adapter

6. Connect the strut to specified pivot position on the adapter. Connection to be made by 100mm Ø pin or 106mm Ø pin and secure with an 'R' clip.
7. Connect a Restraint Chain to each strut.
8. Secure the opposite end of the strut to the pre-prepared foundation (e.g. Thrust Block).

Maxi Brace / Mega Brace / MP50 / MP60

**Safety Notes:** Extreme care and adequate precautions must be taken to prevent trapping fingers during all stages of work.

1. Offer the adapter to the beam at the location specified by design. Note: Spacers are required to reduce the jaw size to suit Maxi.
2. Excavate to the required depth to install the beam as necessary, ensuring that additional depth has been allowed locally for the adapter.
3. Position the Restraint Chains for the Maxi Beam as specified in the Maxi Brace Installation Instructions.
4. Raise the beam into the correct position against the sheet pile wall, supported on brackets.
5. Secure the beam assembly to the sheet piled wall to counter act uplift and/or rotation, in accordance with design information.
6. Connect the strut to specified position on the adapter. Connection to be made by 4 No. M20 bolts via 22mm holes (MP50,MP60 Strut). There is no physical restraint but the angle of the strut should be between 10° and 37°. Care must be taken to ensure the strut is within these angles: this is to ensure the 'line of action' is maintained through the rear of the beam.
7. Connect a Restraint Chain to each strut.
8. Secure the opposite end of the strut to the pre-pared foundation (e.g. Thrust block).



Do	Do Not
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- ✓ Follow the design information
- ✓ Familiarise yourself with the correct use of the equipment before installing
- ✓ Connect the adapter at the beam stiffener locations
- ✓ Ensure the correct hole is used for the connection between the adapter and the strut
- ✓ Ensure adequate support is available or made available for the opposite end of the strut
- ✓ Ensure all personnel are made aware of all lifting operations
- ✓ Connect the Restraint Chains to the Beam and the Strut
- ✓ Take care to avoid trapping fingers

- ✗ Use the adapter on any beam other than a Groundforce Beam
- ✗ Connect the adapter upside down to the beam
- ✗ Over dig below the beam prior to installing the raking strut
- ✗ Use the strut outside its allowable raking angle

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**The one day course can accommodate up to 20 delegates per day**