

PALPILLE BRACING



The PalPile Bracing System is a very easy and straightforward to assemble, very adaptable, modular hydraulic bracing system that has interchangeable extension modules in various lengths. The PalPile 300 or 400 Series Bracing can be used with heavy duty steel trench sheets or sheet piles to support excavations of various size and depths. The PalPile 300 or 400 Series Bracing extension modules have built in shear stops to incorporate the use of knee braces and cross bracing. The PalPile 300 or 400 Series Bracing are recommended for excavations from 2,1 m to 16,7 m and are normally assembled and installed within the excavation using either excavators or cranes. Bigger sizes of excavations can be braced using this system with intermediate bracing struts such as the PP 300, PP 400, PP 600, and PP 1000 Bracing Strut.

Fabricated from grade S460 UC steel sections the extension modules are quickly assembled into brace legs using simple pin and retaining clip / bolt and nut assemblies. Each hydraulic leg contains a double acting hydraulic ram which gives 650 mm of stroke. These are joined together at corners to form frames with a simple pin and retaining clip. Extending the rams with the PalPile Power Pack and hydraulic jack allows the leg lengths to be easily adjusted to suit the excavation sizes. Lifting and restraining points are provided on each leg to allow the assembly / removal of the brace to be secure and safe. PalPile can supply a full range of suitable lifting and restraining chains.

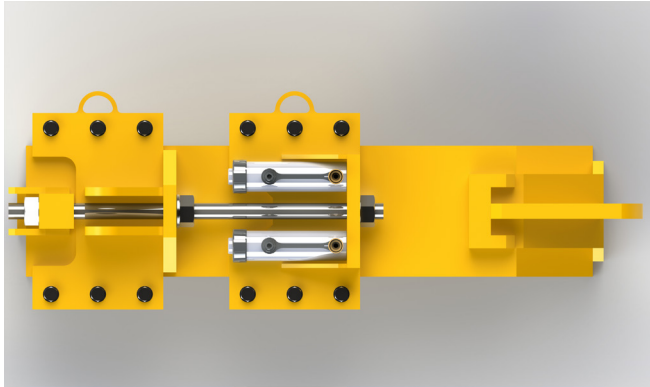


PRODUCT NOTES

- The hydraulic brace is a heavy duty piece of equipment and should only be assembled, installed and removed by qualified personnel and as per the installation instructions. When assembling on site ensure that all pins and retaining clips are in place and secured and all bolts are installed and fully tightened with a minimum of two threads visible beyond the nut.
- Hanging chains are connected to the sheet piles and attached to the brace to help with installation / extraction of the brace and to support at all times. All the hanging chains should be connected every 3,0 m and adjusted to ensure the brace is in the correct position. Hanging chains should never be used for lifting.
- Always visually inspect the brace before installation.
- The brace should always be installed square to the excavation walls and contact with all the inward facing sheet piles must be insured. Any gaps must be securely packed by using hardwood wedges.
- Safe access and edge protection (for personnel) and barrier protection (for plant) should always be considered.
- Prior to removal of the brace, all hydraulic rams must be released and retracted to avoid the need for excessive extraction forces and to avoid damaging corner joints.
- No matter how much care is taken during the installation and removal of hydraulic bracing systems some ground movement will occur in the areas immediately surrounding the excavation. Great care must be taken when specifying these systems for use adjacent to existing structures and services.

HYDRAULIC

PalPile 300 and 400 Series Bracing gives a 650 mm stroke of adjustment.



Description	Product No.	Weight (kg)
300 series Hydraulic Unit	0300	450
Description	Product No.	Weight (kg)
400 series Hydraulic Unit	0400	900

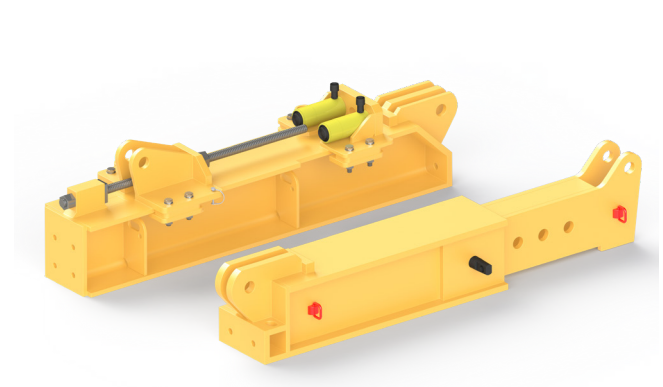


Extendable ram section is powered with a 700 bar hydraulic jack.

Mechanism and automation control of extendable ram section is powered by safe 24V voltage.

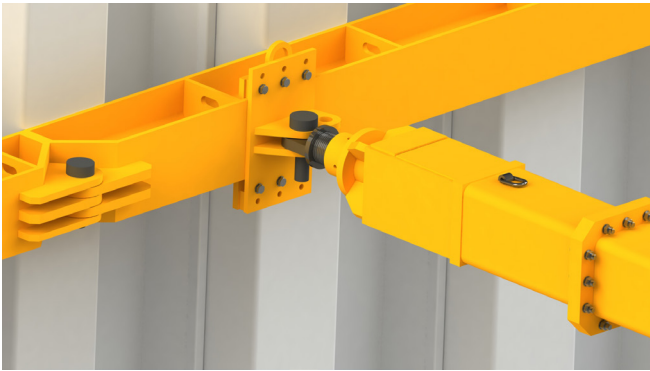
LENGTHS

PalPile 300 and 400 Series Bracing consists of different beams in lengths of 0,5 m, 1,0 m, 2,0 m, 3,0 m and 6,0 m. All lengths are given as pin to pin.

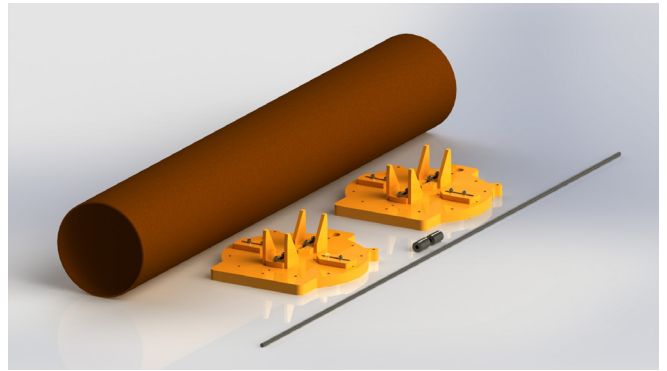


Description	Product No.	Weight (kg)
300 Series 0,5 m Extension	0305	103
300 Series 1,0 m Extension	0301	207
300 Series 2,0 m Extension	0320	330
300 Series 3,0 m Extension	0330	452
300 Series 6,0 m Extension	0360	825

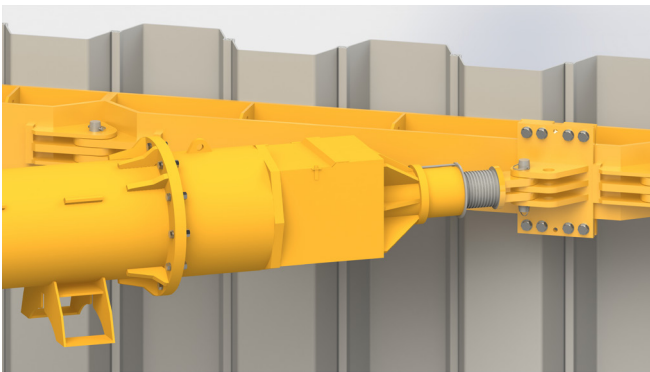
Description	Product No.	Weight (kg)
400 Series 0,5 m Extension	0405	162
400 Series 1,0 m Extension	0401	325
400 Series 2,0 m Extension	0420	524
400 Series 3,0 m Extension	0430	723
400 Series 6,0 m Extension	0460	1334



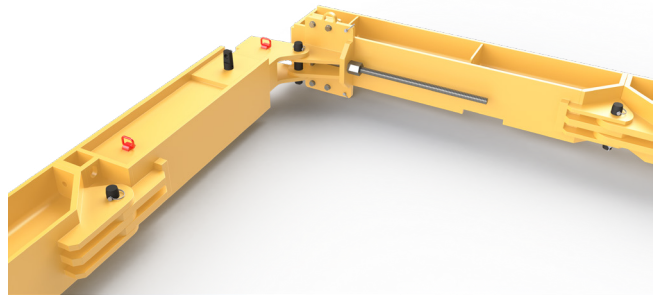
- Ø 50 mm pins are used to connect selected extensions and hydraulic units into the frame.
- All sections are connected with a Ø 50 mm Grade 50 pin and a safety clip. Then secured with nuts and bolts.



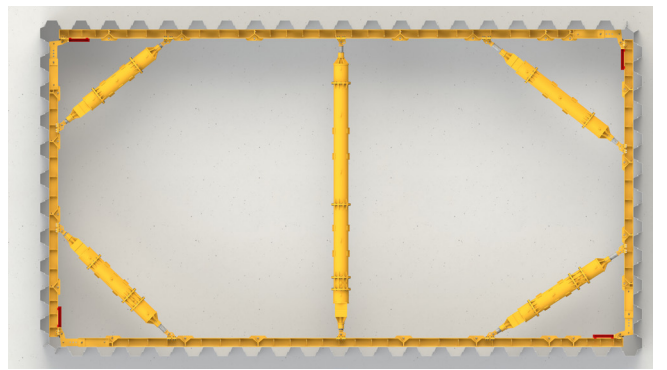
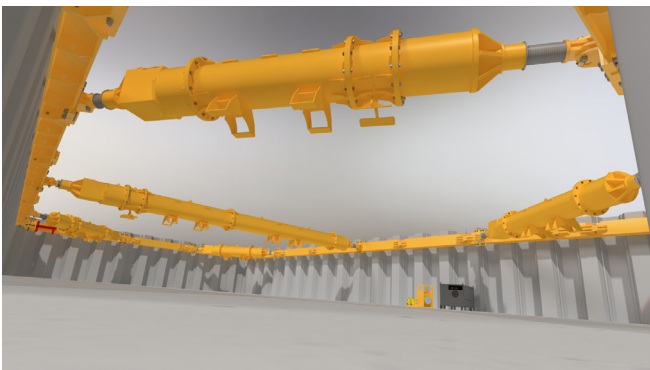
- The power pack comes with a double acting 50 ton jack and 6,0 m female and male hoses.
- Corners should be packed out with hardwood wedges to ensure the brace is evenly loaded.



- Lifting points to ensure safe connection while moving the selected extension or hydraulic unit.



- Connection points to secure restraint chains to ensure the brace is secured safely within the excavation.

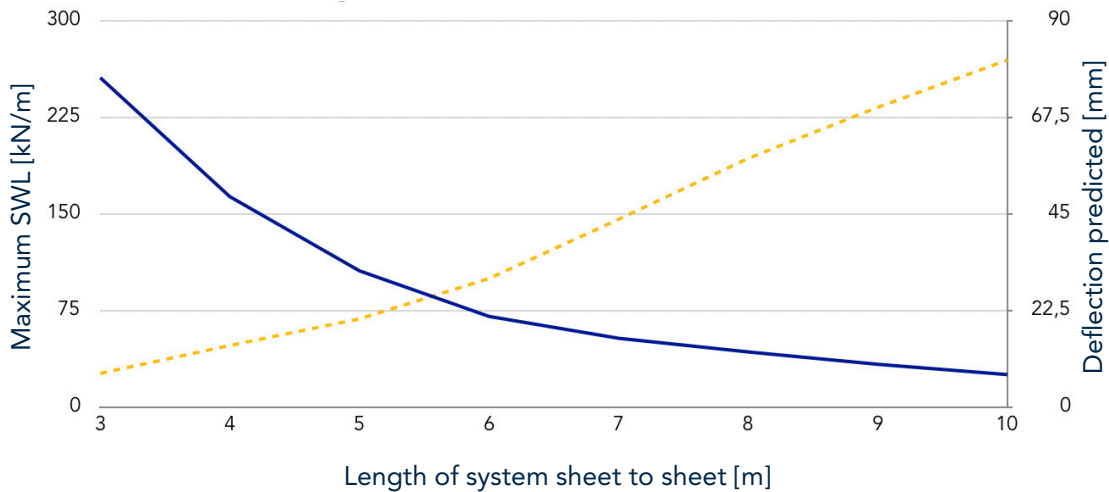


PALPILE 300

Heavy duty double acting 4-sided hydraulic support system to be used together with PalPile sheet piling or trench sheeting, giving support to excavations from 2,1-10,00 m.

Hydraulic Unit 450 kg	0,5 mtr Ext 103 kg	1,0 mtr Ext 207 kg	2,0 mtr Ext 330 kg	3,0 mtr Ext 452 kg	6,0 mtr Ext 825 kg	Sheet to sheet		Clear opening	
						Min (mm)	Max (mm)	Min (mm)	Max (mm)
1						2.050	2.700	1.450	2.100
1	1					2.550	3.200	1.950	2.600
1		1				3.050	3.700	2.450	3.100
1	1	1				3.550	4.200	2.950	3.600
1			1			4.050	4.700	3.450	4.100
1	1		1			4.550	5.200	3.950	4.600
1				1		5.050	5.700	4.450	5.100
1	1			1		5.550	6.200	4.950	5.600
1		1		1		6.050	6.700	5.450	6.100
1	1	1		1		6.550	7.200	5.950	6.600
1			1	1		7.050	7.700	6.450	7.100
1	1		1	1		7.550	8.200	6.950	7.600
1					1	8.050	8.700	7.450	8.100
1	1				1	8.550	9.200	7.950	8.600
1		1			1	9.050	9.700	8.450	9.100
1	1	1			1	9.550	10.200	8.950	9.600
1			1		1	10.050	10.700	9.450	10.100

LOADING CHART CURVE FOR BRACE 300 ACC. TO EN 14653



PALPILE 400

Heavy duty double acting 4-sided hydraulic support system to be used together with PalPile sheet piling or trench sheeting, giving support to excavations from 2,6-16,00 m.

Hydraulic Unit 900 kg	0,5 mtr Ext 162 kg	1,0 mtr Ext 325 kg	2,0 mtr Ext 524 kg	3,0 mtr Ext 723 kg	6,0 mtr Ext 1.334 kg	Sheet to sheet		Clear opening	
						Min (mm)	Max (mm)	Min (mm)	Max (mm)
1						2.550	3.250	1.950	2.650
1	1					3.050	3.750	2.450	3.150
1		1				3.550	4.250	2.950	3.650
1	1	1				4.050	4.750	3.450	4.150
1			1			4.550	5.250	3.950	4.650
1	1		1			5.050	5.750	4.450	5.150
1				1		5.550	6.250	4.950	5.650
1	1			1		6.050	6.750	5.450	6.150
1		1		1		6.550	7.250	5.950	6.650
1	1	1		1		7.050	7.750	6.450	7.150
1			1	1		7.550	8.250	6.950	7.650
1	1		1	1		8.050	8.750	7.450	8.150
1					1	8.550	9.250	7.950	8.650
1	1				1	9.050	9.750	8.450	9.150
1		1			1	9.550	10.250	8.950	9.650
1	1	1			1	10.050	10.750	9.450	10.150
1			1		1	10.550	11.250	9.950	10.650
1	1		1		1	11.050	11.750	10.450	11.150
1				1	1	11.550	12.250	10.950	11.650
1	1			1	1	12.050	12.750	11.450	12.150
1				2	1	12.550	13.250	11.950	12.650
1	1			2	1	13.050	13.750	12.450	13.150
1			1	1	1	13.550	14.250	12.950	13.650
1	1		1	1	1	14.050	14.750	13.450	14.150
1					2	14.550	15.250	13.950	14.650
1	1				2	15.050	15.750	14.450	15.150
1		1			2	15.550	16.250	14.950	15.650
1	1	1			2	16.050	16.750	15.450	16.150

LOADING CHART CURVE FOR BRACE 400 ACC. TO EN 14653

