INTENDED FOR USE BY PROFESSIONAL EQUIPMENT OPERATORS

INSTRUCTIONS
SUPPLEMENT

908 W. Main • P.O. Box 368
Laurel, MT USA 59044
(1) 800-548-7341
(1) 406-628-8231
www.wpg.com

READ AND UNDERSTAND BEFORE USING APPLICABLE EQUIPMENT

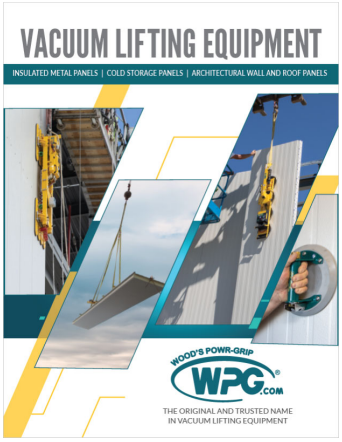
PANEL LIFTING WITH P110T04DC3 AND MRTALPCH610TDC3O LIFTERS

Note: Make sure to follow all instructions and warnings in the lifter's OPERATING INSTRUCTIONS, except where they differ from directions in this INSTRUCTIONS SUPPLEMENT. If necessary, contact Wood's Powr-Grip or an authorized dealer for more information.

WPG lifter models P110T04DC3 and MRTALPCH610TDC3O, which employ a pad channel, are multipurpose lifters that can be used for panel lifting. Typically, they are employed to handle vertical wall panels, and they are ideal for handling cold storage panels and smaller IMP installations. This supplement includes information about special considerations when using these lifters for handling horizontal wall panels and roof panels.

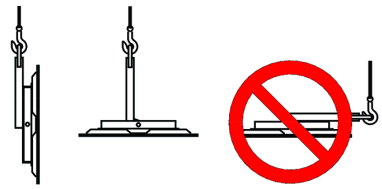
Model Number	P110T04DC3	MRTALPCH610TDC3O
***OPERATING INSTRUCTIONS* Number**	35123	35125
Maximum Load Capacity	600 lbs [270 kg]	900 lbs [410 kg]
Maximum Panel Length		
Vertical Wall Panel	70' [21 m]	70' [21 m]
Horizontal Wall Panel	30' [9 m] under optimal conditions	30' [9 m] under optimal conditions
Roof Panel	30' [9 m] under optimal conditions	30' [9 m] under optimal conditions

For information about all WPG vacuum lifting equipment suitable for panel lifting, click on either of the images below.



To Lift a Vertical Wall Panel

Lift bar must be vertical to lift panel.



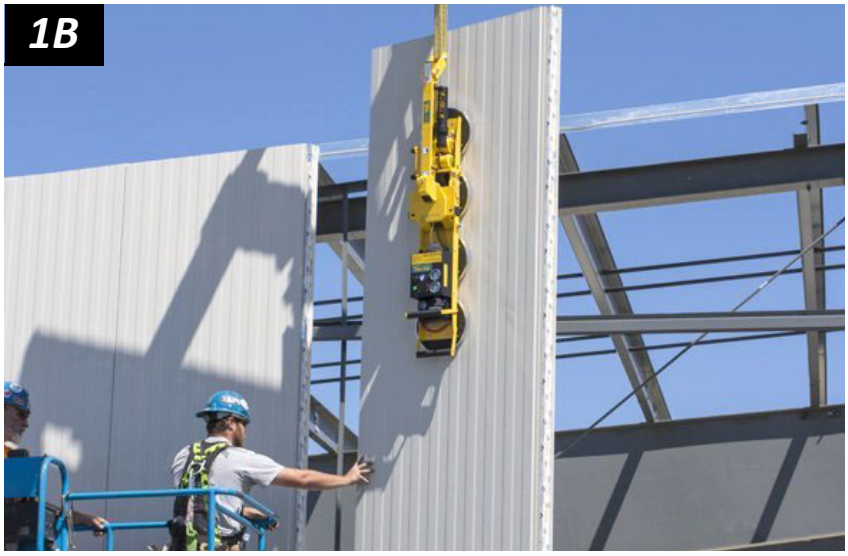
Understanding 'Above Center' Positioning

Note: To view a WPG video demonstrating "above center" positioning with a P110T04DC3 lifter, go to https://vimeo.com/showcase/5309585/video/466333631.

Unlike typical material-handling applications, "above center" positioning (ie, attaching a vacuum lifter's pads above a load's center of gravity) is an effective technique for handling vertical wall panels.

1A

1B



In this technique, gravity automatically tilts a panel from the flat position to the upright position when the panel is lifted for installation (figs. 1A-B).

A loaded lifter should hang from a crane rather than be rigidly mounted to an adapted counter-balancer or forklift. If a rigid mounting system is used, the lifter's load capacity will be reduced.[1]

Load capacity is reduced when panel is hoisted using rigid mounting system.

1..... If a rigidly mounted lifter is intended for use on panels or other long, thick loads, call WPG for consultation.

Positioning the Lifter for a Vertical Wall Panel

Note: Make sure the rotation latch remains engaged throughout the lift.

1A

1B

1) Raise the lift bar to the vertical position (figs. 1A-B).

   If needed, pull the tilt release lever (circled in fig. 1A) to disengage the tilt latch. Failure to disengage the latch before lifting could result in an unexpected panel release and personal injury, as well as damage to the lifter or the panel.

   Disengage tilt latch before positioning lifter and lifting panel.

   Note: A standard P110T04DC3 lifter is shown.

2) Determine which end of the panel will be the top end when lifted.

3) Use hoisting equipment to position the lifter nearer to the top end of the panel (fig. 3A). For optimal load support, the lifter should be positioned 1/3 of the way inward from the end of panel. Then lower the lifter and center the pad channel on the panel, side to side (see arrows in fig. 3B).

3A

3B

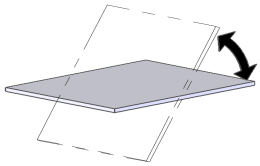
4) Power up the lifter and seal the vacuum pads on the panel, as directed in the lifter's *OPERATING INSTRUCTIONS*.

Lifting and Tilting a Vertical Wall Panel

Make sure lifter is positioned correctly on panel (as previously directed).

Do not attempt to rotate panel that is positioned "above center", because this could result in panel release and personal injury.

1) Make sure the panel has enough clearance to tilt without contacting anyone or anything.
2) Use hoisting equipment to carefully lift the panel, which will automatically tilt from the flat position to the upright position as it is lifted. Make sure to keep the panel under control at all times using control lines or other appropriate means.



Note: Since the bottom edge of the panel tends to pivot or slide on the ground, support and protect the panel as necessary to prevent damage (fig. 2A).

2A

Note: When the panel reaches the upright position, the tilt latch will automatically engage.

3) Move the panel as needed for installation.

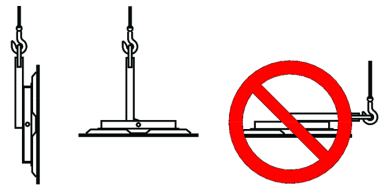
Note: If you need to set down a panel instead of installing it, ...

- *pull the tilt release lever to disengage the tilt latch;*
- *use the hoisting equipment to lower the panel until its bottom edge is adequately supported, and;*
- *carefully move the lifter forward and downward, allowing the panel to tilt as you continue to lower it onto a stable support.*

Disengage tilt latch before lowering panel.

To Lift a Horizontal Wall Panel or Roof Panel

Lift bar must be vertical to lift panel.



Understanding 'On Center' Positioning

Horizontally oriented wall panels and roof panels require vacuum pads to be attached *as close as possible* to a panel's center of gravity, also known as "on center" positioning. In addition to helping ensure pads are loaded evenly, this positioning helps prevent a panel from swinging unexpectedly, as well as bending, breaking or falling due to excessive overhang.

Special Considerations

Designs of channel lifters were not optimized for handling horizontal wall panels or roof panels. However, in some cases, channel lifters can be used this way if precautions are taken:

- Make sure the lifter does not handle any panel that exceeds 30' [9 m].
- Because the lifter does not lock in the flat position, make sure to stabilize the panel when lifting it parallel to the ground (eg, lifting a panel for installation on a roof).
- Make sure the lifter's positioning is precisely "on center". However, centering may be adjusted to accommodate cutouts or openings in the panel.

  Increasing "off center" distance decreases load capacity. To avoid overloading, consult the two charts at right.

  Similarly, panel thickness affects load capacity. Consult the three charts below.

P110T04DC3
or MRTALPCH610TDC3O
in 4-pad configuration

Distance from center	Load Capacity
0" [0 cm]	600 lbs [270 kg]
2" [5 cm]	455 lbs [205 kg]
6" [15 cm]	310 lbs [140 kg]
10" [25 cm]	235 lbs [105 kg]
14" [35 cm]	190 lbs [85 kg]
18" [45 cm]	160 lbs [75 kg]
22" [55 cm]	135 lbs [60 kg]

MRTALPCH610TDC3O
6-pad configuration only

Distance from center	Load Capacity
0" [0 cm]	900 lbs [410 kg]
2" [5 cm]	835 lbs [380 kg]
6" [15 cm]	725 lbs [330 kg]
10" [25 cm]	645 lbs [295 kg]
14" [35 cm]	565 lbs [260 kg]
18" [45 cm]	495 lbs [225 kg]
22" [55 cm]	445 lbs [200 kg]

P110T04DC3

Panel Thickness	Load Capacity
2" [5 cm]	570 lbs [260 kg]
3" [7.5 cm]	480 lbs [220 kg]
4" [10 cm]	410 lbs [185 kg]
5" [12.5 cm]	360 lbs [165 kg]
6" [15 cm]	320 lbs [145 kg]

MRTALPCH610TDC3O
6-pad configuration

Panel Thickness	Load Capacity
2" [5 cm]	900 lbs [410 kg]
3" [7.5 cm]	900 lbs [410 kg]
4" [10 cm]	850 lbs [385 kg]
5" [12.5 cm]	680 lbs [310 kg]
6" [15 cm]	560 lbs [255 kg]

MRTALPCH610TDC3O
4-pad configuration

Panel Thickness	Load Capacity
2" [5 cm]	600 lbs [270 kg]
3" [7.5 cm]	600 lbs [270 kg]
4" [10 cm]	560 lbs [255 kg]
5" [12.5 cm]	450 lbs [205 kg]
6" [15 cm]	370 lbs [170 kg]

Positioning the Lifter for a Horizontal Wall Panel or Roof Panel

1) Raise the lift bar to the vertical position (see figs. 1A-B in "Positioning the Lifter for a Vertical Wall Panel").

   If needed, pull the tilt release lever to disengage the tilt latch. Failure to disengage the latch before lifting could result in an unexpected load release and personal injury, as well as damage to the lifter or panel.

> ***Disengage tilt latch before positioning lifter and lifting panel.***

2) Use hoisting equipment to position the lifter above the panel. Then lower the lifter and center the pad channel on the panel ***precisely***, side to side and end to end (see arrows in fig. 2A), for optimal load support.

3) Power up the lifter and seal the vacuum pads on the panel, as directed in the lifter's *OPERATING INSTRUCTIONS*.

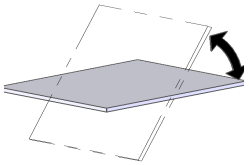
Lifting, Tilting and Rotating a Horizontal Wall Panel

> ***Make sure lifter is positioned correctly on panel (as previously directed).***
>
> ***Never disengage rotation and tilt latches at the same time, because this could result in panel damage or personal injury.***

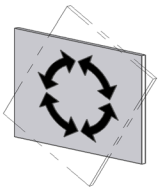
1) Make sure the panel has enough clearance to tilt and rotate without contacting anyone or anything.

2) Use hoisting equipment to carefully lift the panel, making sure to keep the panel under control at all times using control lines or other appropriate means.

3) Tilt the panel from flat to upright until the tilt latch engages.



4) Pull the rotation release lever, to disengage the rotation latch. Then let go of the lever and rotate the panel 90° clockwise or counterclockwise, guiding it until the latch engages at the appropriate rotation stop.



5) Move the panel as needed for installation.

   Note: If you need to set down a panel instead of installing it, ...

   - *rotate the panel back to the center rotation position;*
   - *use the hoisting equipment to lower it until its bottom edge is adequately supported, and;*

> ***Disengage tilt latch before lowering panel.***

   - *carefully move the lifter forward and downward, allowing the panel to tilt as you continue to lower it onto a stable support.*

Lifting a Roof Panel

> ***Make sure lifter is positioned correctly on panel (as previously directed).***

1) Use hoisting equipment to carefully lift the load, making sure to keep the panel under control at all times using control lines or other appropriate means.
2) Move the panel as needed for installation.

   Note: Make sure to rotate the panel so that one of its ends faces in the same direction as the lifter's lift point, which will allow the opposite end of the panel to naturally tilt to match the roof's pitch. To tilt, you can lower the panel until it rests on the peak of the roof or you can manually lift the upper end of the panel.

   Note: If you need to set down a panel instead of installing it, ...

   - *use the hoisting equipment to lower it until its bottom edge is adequately supported, and;*
   - *carefully move the lifter forward and downward, allowing the panel to tilt as you continue to lower it onto a stable support.*