

KEEP FOR FUTURE REFERENCE



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INSTRUCTIONS

International Version

STOCK NUMBERS: 97463, 97464, 97465(HV)



**PAD FRAME T-ARM ASSEMBLIES,
EXTENSION KIT AND ROCKER ARMS**



***READ ALL INSTRUCTIONS AND WARNINGS
BEFORE USING THIS PRODUCT***



DESIGNED FOR THE MATERIALS HANDLING PROFESSIONAL

SPECIFICATIONS

Stock Number: 97465, 97465HV

Description: When installed, Pad Frame T-Arm Assemblies enable a vacuum lifter to handle cladding and textured materials with various profiles and dimensions.

Available Vacuum Pads:

VPFS625: Four with nominal dimensions of 6" x 25" [15 cm x 64 cm] and foam rubber inserts, spring-mounted (1/2" [12 mm] travel) with #60 filter screen

VPFS10T: Four 10" [25 cm] nominal diameter, standard rubber, spring-mounted (1/4" [7 mm] travel) with #60 filter screen and replaceable sealing rings

Compatible Lifter Models:

MRT4-DC

MRTALP8-DC

MRTA8-DC

Adjusted Pad Spread with VPFS625 Pads:

Maximum:	38 1/4" x 69" [97 cm x 175 cm]	36" x 92 3/4" [92 cm x 236 cm]	37 1/2" x 87 1/2" [95 cm x 222 cm]
Minimum:	19 1/4" x 69" [49 cm x 175 cm]	15 1/2" x 92 3/4" [39 cm x 236 cm]	16 1/2" x 87 1/2" [42 cm x 222 cm]

Adjusted Pad Spread with VPFS10T Pads:

Maximum:	43" x 55" [109 cm x 140 cm]	45 3/4" x 78 3/4" [116 cm x 200 cm]	42 1/2" x 73 1/2" [108 cm x 187 cm]
Minimum:	27" x 55" [69 cm x 140 cm]	25 3/4" x 78 3/4" [65 cm x 200 cm]	26 1/2" x 73 1/2" [67 cm x 187 cm]

Adjusted Maximum Load Capacity:¹

320 lbs [145 kg] for load thickness up to 6" [15 cm]	600 lbs [270 kg] for load thickness up to 12" [30 cm]	600 lbs [270 kg] for load thickness up to 8" [20 cm]
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Maximum Per-Pad Load Capacity: 150 lbs [68 kg]²

Weight Increase: approx. 30 lbs [14 kg] (includes both T-arm assemblies)

Note: Make sure to add the weight of all options to the lifter weight when you are selecting appropriate hoisting equipment (see lifter's instruction manual).

¹ For loads with thicknesses greater than those listed, please contact Wood's Powr-Grip for help in determining the maximum load capacity of the lifter.

² Note that a load capacity calculated from the Maximum Per-Pad Load Capacity may not exceed the Adjusted Maximum Load Capacity.

Stock Number: 97463, 97464

Descriptions: When a Pad Frame Extension Kit (97464) is employed on an MRTALP-DC vacuum lifter, this option enables it to install composite roof panels or to handle other long load materials in the flat orientation.³

When Pad Frame Rocker Arms (97463) are also employed on an MRTALP-DC vacuum lifter, this option enables it to handle loads in the flat orientation with increased weight and length. Note: This option requires an additional set of Pad Frame T-Arm Assemblies.

MRTALP-DC Adjusted Maximum Pad Spread with...

...Options:	Extension Kit (97464)	Extension Kit (97464), Rocker Arms (97463), plus extra set of T-Arm Assemblies (97465[HV])
& VPFS625 Pads:	36" x 324¾" [92 x 825 cm]	36" x 392½" [92 x 997 cm]
& VPFS10T Pads:	45¾" x 310¼" [116 x 788 cm]	45¾" x 378" [116 x 960 cm]

MRTALP-DC Adjusted Maximum Load Capacity:⁴

600 lbs [270 kg]	1100 lbs [500 kg]
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MRTALP-DC Weight Increase:

100 lbs [46 kg]	225 lbs [102 kg]
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Note: Make sure to add the weight of all options to the lifter weight when you are selecting appropriate hoisting equipment (see lifter's instruction manual).

³ An MRTALP-DC lifter equipped with an Extension Kit (with or without Rocker Arms) can be used to handle loads positioned on inclines up to a 4/12 pitch.

⁴ For loads with thicknesses greater than those listed, please contact Wood's Powr-Grip for help in determining the maximum load capacity of the lifter.

WARNINGS



Powr-Grip is pleased to offer the most reliable materials handling products available. Despite the high degree of security provided these optional vacuum lifter components, certain precautions must be observed to protect the user and others.



Always wear personal protective equipment that is appropriate for the material being handled. Follow trade association guidelines.

Always use optional components under conditions approved for the design of the vacuum lifter (see lifter's instruction manual).

Never use optional components that are damaged, malfunctioning, or missing parts.

Never use optional components if the sealing edge of any vacuum pad is cut or otherwise damaged.

Never remove or obscure warning labels on optional components.

Never use optional components if a Load Capacity or any warning appears to be missing or obscured.

Always make certain the contact surfaces of the load and all vacuum pads are clean prior to applying the pads (see lifter's instruction manual).

Never exceed the relevant Adjusted Maximum Load Capacity or attempt to lift loads that optional components are not designed for (see SPECIFICATIONS, ASSEMBLY and OPERATION).

Always position the vacuum pads correctly on the load prior to lifting (see OPERATION).

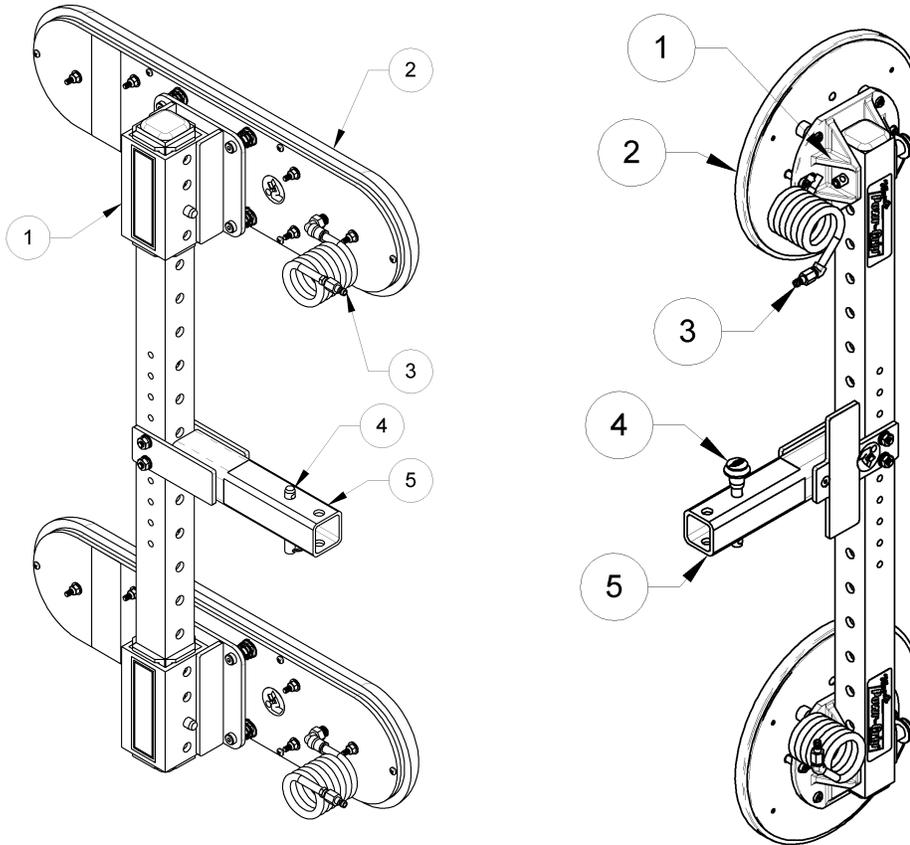
Always remember that modifications to optional components may compromise your safety. Wood's Powr-Grip cannot be responsible for products that have been modified by the customer. For consultation, contact Wood's Powr-Grip.

Never use a sling if the capacity tag is missing or unreadable.

Never use a sling that has knots, twists or wear that may compromise its strength.

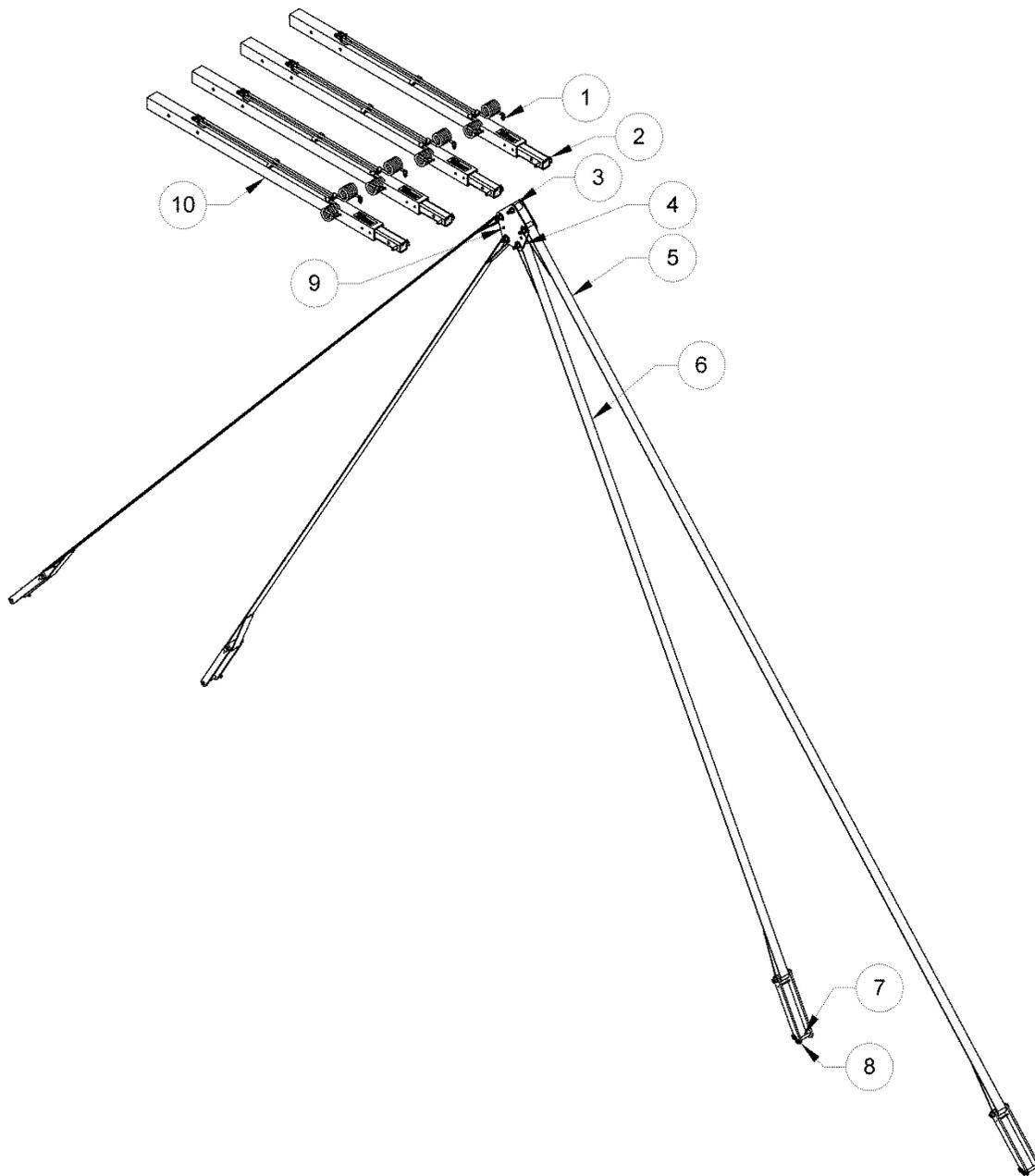
OPERATING FEATURES

Note: Components featured in the following instructions for assembling, using or maintaining optional assemblies are underlined> on their first appearance in each section.



Pad Frame T-Arm Assemblies

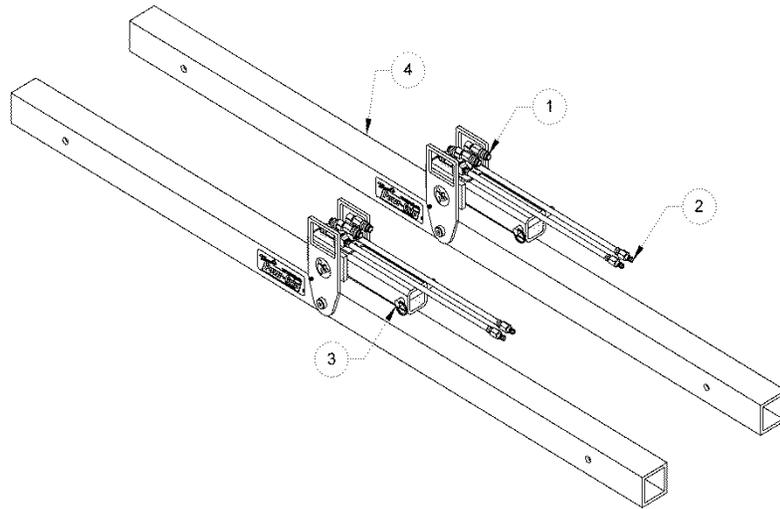
- | | | |
|-------------------------------|------------------------|----------------|
| 1 SLIDING / MOVABLE PAD MOUNT | 3 MALE QUICK CONNECTOR | 5 MOUNTING ARM |
| 2 VACUUM PAD | 4 COTTERLESS HITCH PIN | |



Pad Frame Extension Kit

- | | | |
|------------------------|------------------------|--|
| 1 MALE QUICK CONNECTOR | 5 LONG (OUTSIDE) SLING | 9 LONG SLING STORAGE HOLE ⁵ |
| 2 COTTERLESS HITCH PIN | 6 SHORT (INSIDE) SLING | 10 EXTENSION ARM |
| 3 LIFT SPOOL ASSEMBLY | 7 CLEVIS PIN | 11 FEMALE QUICK CONNECTOR |
| 4 LIFT SHACKLE | 8 HAIRPIN | |

⁵ These holes allow long slings to be secured to the lift spool assembly when the slings are not in use.

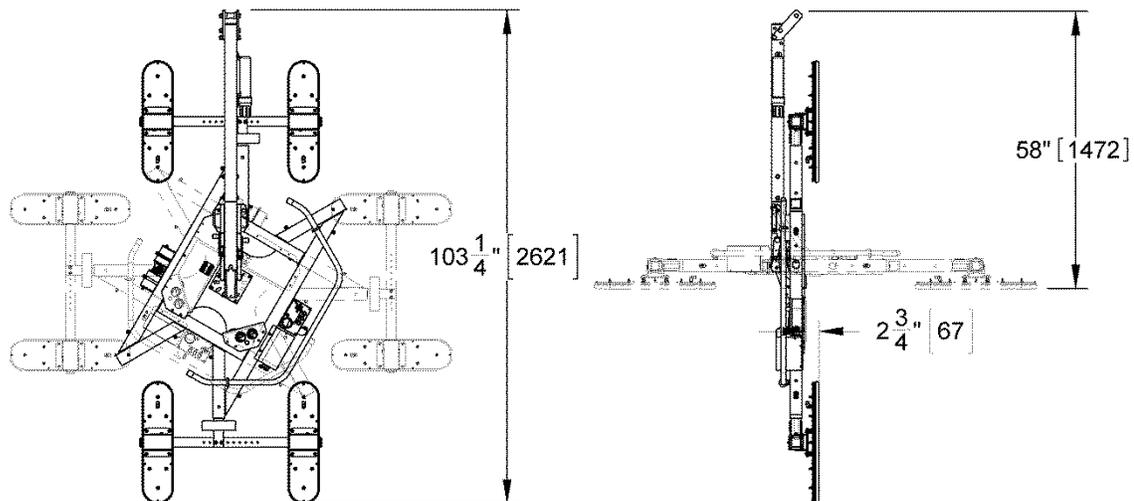


Pad Frame Rocker Arms

- | | |
|--------------------------|------------------------|
| 1 FEMALE QUICK CONNECTOR | 3 COTTERLESS HITCH PIN |
| 2 MALE QUICK CONNECTOR | 4 ROCKER ARM TUBE |

ASSEMBLY

TO EMPLOY PAD FRAME T-ARM ASSEMBLIES (97465[HV])



MRTALP-DC shown with Pad Frame T-Arm Assemblies and VPFS625 pads.

Assemble the vacuum lifter as directed in the lifter's instruction manual. However, instead of standard extension arms and vacuum pads, install the 2 Pad Frame T-Arm Assemblies with all 4 vacuum pads and connect all the vacuum hoses, as directed in the following sections. Note: Use only 2 pads on each T-arm.

Installing/Removing T-Arm Assemblies

- 1) Remove the cotterless hitch pin from the mounting arm of one Pad Frame T-Arm Assembly.
- 2) Insert the end of the mounting arm as far as possible into its socket on the lifter's main pad frame (see preceding illustration), so that the holes align for the cotterless hitch pin.
- 3) Secure the mounting arm in the pad frame by pushing the cotterless hitch pin through the holes until the retaining ball emerges on the far side of the pad frame socket.
- 4) Connect the 2 vacuum hoses on each T-arm assembly to the nearest available connection points on the main pad frame, as directed in the section Connecting/Disconnecting Vacuum Hoses to follow.

Note: If the lifter is equipped with a dual vacuum system, 2 air-line circuits are identified by color-coded vacuum hoses. In order to ensure maximum effectiveness of the dual vacuum system, the vacuum pads must be connected in an equal and alternating distribution to the 2 circuits.

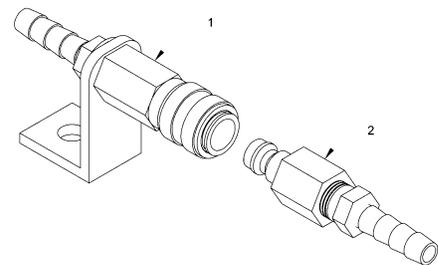
- 5) Repeat steps #1-4 to install the second T-arm assembly, as shown in the preceding illustration.

- 6) To remove T-arm assemblies, reverse this procedure. Store removed T-arm assemblies in a clean, dry location to protect them from environmental exposure. Set the vacuum pads facing upward, because prolonged pressure against the sealing edges may cause them to become distorted.

Note: The bolts connecting the cross member to the mounting arm on each T-arm assembly may be removed, allowing you to reposition the cross member laterally on the mounting arm. Depending on the vacuum lifter used, such an adjustment may be required to keep a desired pad configuration symmetrical. Precise alignment of the vacuum pads may be essential to attach the lifter on architectural panels with high contours and/or narrow spacing between contours that run the length of the panel. Position the cross members of both T-arms so that each cross member is centered on the rotation axis (not centered on the mounting arm). Be sure to tighten the bolts securely each time after you reposition a cross member on its mounting arm.

Connecting/Disconnecting Vacuum Hoses

The vacuum hose for each vacuum pad is connected to or disconnected from the lifter's vacuum system by means of a quick connector. To connect the vacuum hose, push the male and female ends of the connector together until they lock. To disconnect the vacuum hose, move the release ring on the female end away from the male end until the connector separates.



⚠ WARNING: Make sure vacuum hoses are coiled or routed to avoid damage during rotation or tilt.

QUICK CONNECTOR
1 FEMALE END
2 MALE END

Make sure all vacuum hoses are secure and routed to avoid being punctured, pinched, kinked, entangled, abraded or otherwise damaged while the lifter is in operation.

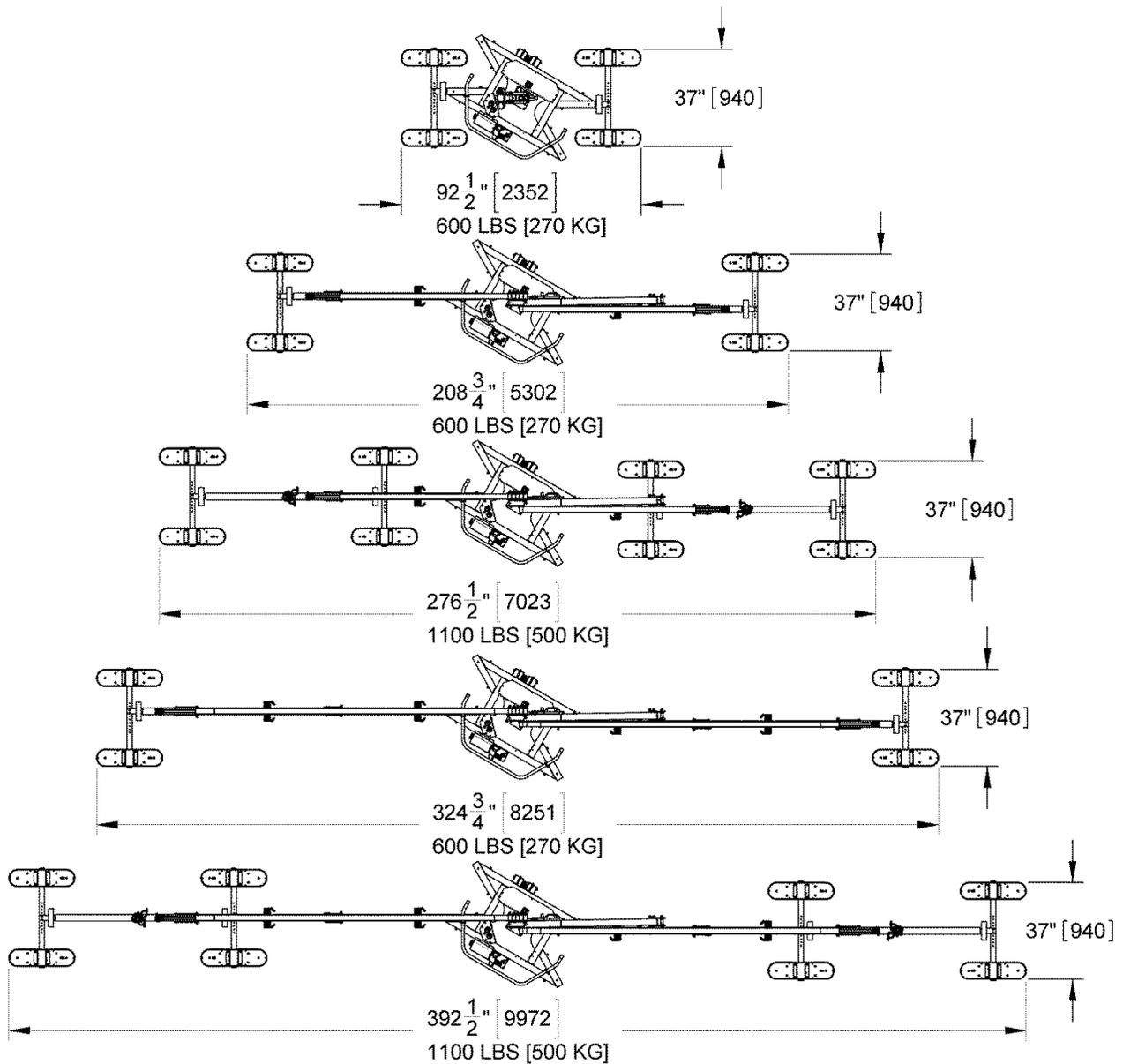
Note: Since MRT4-DC lifters do not come equipped with quick connectors, a quick connector kit is available with T-arm assemblies (see REPLACEMENT PARTS LIST).

TO EMPLOY THE PAD FRAME EXTENSION KIT (97464) AND ROCKER ARMS (97463) FOR FLAT LIFTING

These optional components offer a variety of configurations to accommodate different dimensions and weights of roof panels and similar loads (see illustration on following page). Configurations are created by installing optional components from the extension kit and rocker arms, as well as T-arm assemblies. While the extension kit provides the support needed to lift long, rigid loads, the rocker arms and T-arm assemblies can be added to support even greater load weights and lengths.

Select a configuration to provide optimal support across the load surface and to minimize load overhang (see OPERATION: BEFORE USING THE LIFTER in lifter's instruction manual). Always arrange the vacuum pads in a symmetrical configuration about the MRTALP-DC's main pad frame, in both width and length dimensions. To prevent lifter damage when the extension kit or rocker arms are used, always use the lift spool assembly and slings regardless of the configuration selected.

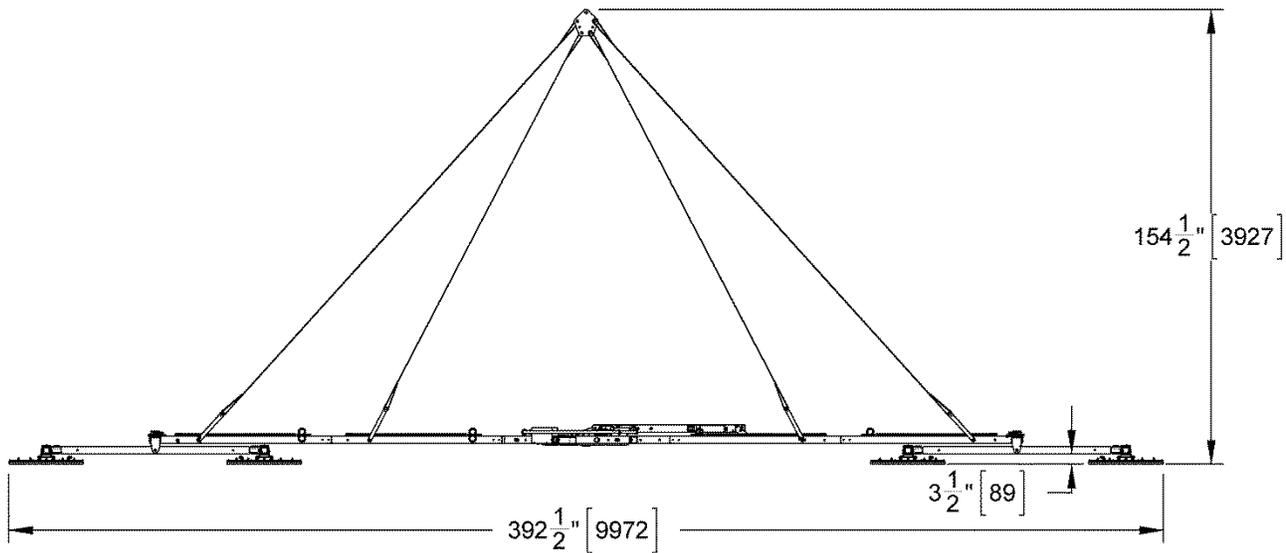
After changing the pad frame configuration, make sure all vacuum hoses are secure and routed to avoid being pinched, snagged, abraded or otherwise damaged while the lifter is in operation. Also be sure to verify that all pads are connected and functioning correctly (see preceding discussion).



PAD SPREAD AND MAXIMUM LOAD CAPACITY

Configurations are shown with the following optional components and VPFS625 vacuum pads installed (from top to bottom):

- a) 1 set of T-Arm Assemblies
- b) Extension Kit (2 arms in use) and 1 set of T-Arm Assemblies
- c) Extension Kit (2 arms in use), Rocker Arms, and 2 sets of T-Arm Assemblies
- d) Extension Kit (4 arms in use) and 1 set of T-Arm Assemblies
- e) Extension Kit (4 arms in use), Rocker Arms, and 2 sets of T-Arm Assemblies



MRTALP-DC shown with Extension Kit (incl. slings, shackles & lift spool assembly), Rocker Arms, and 2 sets of T-Arm Assemblies with VPFS625 vacuum pads.

Installing Extension Kit and Rocker Arms

- 1) Remove any pad frame extensions from the MRTALP-DC vacuum lifter in similar way to that described for the T-arm assemblies (see TO EMPLOY PAD FRAME T-ARM ASSEMBLIES: Installing/Removing T-Arm Assemblies preceding).
- 2) Set the lifter down as directed in its instruction manual (see OPERATION: AFTER USING THE LIFTER) and install one extension arm in similar way to that described for the T-arm assemblies (see TO EMPLOY PAD FRAME T-ARM ASSEMBLIES: Installing/Removing T-Arm Assemblies preceding). Then install another extension arm in the socket on the opposite side of the lifter's pad frame. Consult the configuration illustration on the preceding page for correct orientation of the extension arms.

- 3) Attach the hoisting equipment hook to the center spool of the lift spool assembly.

Note: Some hoisting equipment hooks may not be compatible with the lift spool assembly. If not, attach a sling with adequate capacity rating between the hook and the lift spool.

⚠ WARNING: Any sling used must be rated to carry maximum load weight plus lifter weight.

- 4) Use a clevis pin to attach a short sling to one extension arm, and secure it with a hairpin. Then repeat this step for the other extension arm.
- 5) Suspend the lifter from a crane as directed in the ASSEMBLY section of the lifter's instruction manual.
- 6) Install additional extension arms, rocker arms and T-arm assemblies (see TO EMPLOY PAD FRAME T-ARM ASSEMBLIES: Installing/Removing T-Arm Assemblies preceding), as necessary to support the load adequately. The pad frame configuration selected must be appropriate, both for the weight and for the dimensions of the load in question (see SPECIFICATIONS and preceding configuration illustration).

OPERATION

BEFORE USING THE LIFTER

Consult the vacuum lifter's instruction manual to determine all safety precautions, inspections, tests and other preparations which must be completed prior to using the vacuum lifter.

 **WARNING: T-arm assemblies may reduce lifter's Load Capacity.**

Be sure to note that the use of Pad Frame T-Arm Assemblies can reduce the Maximum Load Capacity, as compared to the standard capacity listed in the lifter's instruction manual, especially when you are lifting loads thicker than those recommended for the unadapted version of the lifter. When evaluating the intended use, **be sure to consider the relevant Adjusted Maximum Load Capacity and the relevant Adjusted Pad Spread listed in the preceding SPECIFICATIONS** (*not* the ones listed in the lifter's instruction manual).

Follow the directions in the lifter's instruction manual for applying the vacuum pads to a load. However, before the pads contact the load, adjust the position of the sliding / movable pad mounts as necessary to seal the pads correctly, as directed in the following section.

TO REPOSITION PAD MOUNTS

- 1) Remove the cotterless hitch pin from one pad mount.
- 2) Reposition the pad mount at the desired position along the cross member of the Pad Frame T-Arm Assembly, and align the holes for the cotterless hitch pin in the pad mount with a corresponding hole in the cross member.
- 3) Secure the pad mount by pushing the cotterless hitch pin through the holes until the retaining ball emerges on the far side of the pad mount.
- 4) Make sure that the vacuum hose serving the pad is not pinched, kinked, cut or abraded and that it will not interfere with lifter operations.
- 5) Repeat steps #1-4 to position other pad mounts as needed. Always position pads so as to create a symmetrical arrangement of the pad frame, and make sure that all vacuum lines are functioning correctly.

TO CONFIRM THE PAD FRAME CONFIGURATION

 **WARNING: Load capacity of lifter can vary, depending on pad frame configuration.**

Make sure the optional components have been assembled in the configuration that will provide optimal support of the load while lifting (see ASSEMBLY). The pad frame configuration selected must be appropriate, both for the weight and for the dimensions of the load in question.

Be sure to adjust the position of vacuum pads so as to optimize load support and minimize load overhang for the intended use. Pads must be arranged symmetrically, to keep the lifter balanced. Make sure that all pads will fit entirely on the contact surface of the load and that they will be loaded evenly while lifting (see Maximum Per-Pad Load Capacity in preceding SPECIFICATIONS). After confirming that pads are positioned to support the load correctly, continue to operate the lifter as directed in the lifter's instruction manual.

Note: Depending on the position of pad mounts, the pad frame may extend beyond the edges of smaller loads. When moving such loads, be careful to avoid any obstacles to the pad frame, as well as to the load.

MAINTENANCE

When performing inspections and tests as directed in the lifter's instruction manual, be sure to include all parts of each Pad Frame T-Arm Assembly, Extension Kit and Rocker Arms whenever applicable. In particular, inspect the vacuum pads and, when necessary, replace the pad inserts (for VPFS625 pads) or sealing rings (for VPFS10T pads—see below).

TO REPLACE SEALING RING INSERT IN VPFS10T PAD

- 1) Remove the old sealing ring insert: Hold the vacuum pad firmly and pull the ring insert out from the mounting groove. Discard any damaged ring insert.
- 2) Install a new sealing ring insert (see REPLACEMENT PARTS LIST): Push the ring insert into the mounting groove so that the insert's base (flat side) fits flush against the bottom of the groove. Begin by placing the inside edge of the ring insert against the inside edge of the mounting groove. Then push gently and firmly on the outside edge of the ring insert until it seats completely into the mounting groove. A pad ring installation tool is available to facilitate this process (see REPLACEMENT PARTS LIST). Work your way around the entire ring insert, repeating this process until the entire ring is seated in the mounting groove.
- 3) Make sure that the sealing ring is secure and fully inserted into the mounting groove around the entire perimeter of the vacuum pad.

Note: If the ring insert ever comes partially or entirely out of the mounting groove, inspect the ring insert for damage and reinstall an undamaged ring insert as directed.

REPLACEMENT PARTS LIST

Stock No.	Description	Qty.
97467	Optional MRT4-DC Quick Connector Fittings Kit for T-Arm Assemblies	(1)
97465	Optional Pad Frame T-Arm Assemblies - FS625	(1/2)
97465HV	Optional Pad Frame T-Arm Assemblies - VPFS10T	(1/2)
97464	Optional Pad Frame Extension Kit for Roof Panels	(1)
97463	Optional Pad Frame Rocker Arms for Roof Panels	(1)
65442AM	Vacuum Hose - 1/4" [6.3 mm] ID x 48" [122 cm] Length - Coiled Green	2/4
65441	Vacuum Hose - 1/4" [6.3 mm] ID x 48" [122 cm] Length - Coiled Red	2/4
65440	Vacuum Hose - 1/4" [6.3 mm] ID - Red (approx. 170" [432 cm] in length)	1
65437	Vacuum Hose - 1/4" [6.3 mm] ID - Green (approx. 170" [432 cm] in length)	1
65324CH	Lift Sling - 12' [366 cm] Length	2
65324CD	Lift Sling - 15' [457 cm] Length	2
65313AM	Velcro Strap - 1" x 24" [2.5 cm x 61 cm]	4
49726	Vacuum Pad Insert - Model VIFS625 / 6" x 25" [15 cm x 63 cm] (for VPFS625 pads)	4/8
49724TT	Sealing Ring Insert - Model VIFS10T2 - Closed Cell Foam (for VPFS10T pads)	4/8
49724RT	Sealing Ring Insert - Model VIFS10T1 - Heat-Resistant Rubber (for VPFS10T pads)	4/8
49672T	Vacuum Pad - Model VPFS10T / 10" [25 cm] Diameter - w/Replaceable Sealing Ring	4/8
49122	End Plug - 2" x 2" x 1/4" [50.8 mm x 50.8 mm x 6.4 mm] Tubing Size	4
20050	Pad Ring Installation Tool	1
16057	Quick Connector - 1/8 FNPS - Male End	4
16056	Quick Connector - 1/8 FNPS - Female End	4
13530	Cotterless Hitch Pin - 1/2" x 3-1/2" [13 mm x 89 mm]	6
13435	Clevis Pin - 1/2" x 3-1/2" [13 mm x 89 mm]	4
13219	Hairpin - 0.120" [3 m] Diameter (for clevis pin)	4

***SERVICE ONLY WITH IDENTICAL REPLACEMENT PARTS,
AVAILABLE AT WPG.COM OR THROUGH AN AUTHORIZED WPG DEALER***

LIMITED WARRANTY

Powr-Grip products are carefully constructed, thoroughly inspected at various stages of production, and individually tested. They are warranted to be free from defects in workmanship and materials for a period of one year from the date of purchase.

If a problem develops during the warranty period, follow the instructions hereafter to obtain warranty service. If inspection shows that the problem is due to defective workmanship or materials, Powr-Grip will repair the product without charge.

WARRANTY DOES NOT APPLY WHEN:

Modifications have been made to the product after leaving the factory.

Rubber portions have been cut or scratched during use.

Repairs are required due to abnormal wear and tear.

The product has been damaged, misused, or neglected.

If a problem is not covered under warranty, Powr-Grip will notify the customer of costs prior to repair. If the customer agrees to pay all repair costs and to receive the repaired product on a C.O.D. basis, Powr-Grip then will proceed with repairs.

TO OBTAIN REPAIRS OR WARRANTY SERVICE

For purchases in *North America*:

Contact the Technical Service Department at Wood's Powr-Grip Co. When factory service is required, ship the complete product--prepaid--along with your name, address and phone number to the street address hereafter.

For purchases in *all other localities*:

Contact your dealer or the Technical Service Department at Wood's Powr-Grip Co. for assistance.

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