


KEEP FOR FUTURE REFERENCE

INSTRUCTIONS

MANUAL



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 **INTENDED FOR USE BY SKILLED PROFESSIONALS • READ AND UNDERSTAND BEFORE ASSEMBLING, INSTALLING AND USING**




PAD FRAME T-ARM ASSEMBLIES

Stock numbers: 97465 (shown), 97465HV, 97466

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SPECIFICATIONS

| | | | |
|---|---|--|---|
| Product Description | When installed, Pad Frame T-Arm Assemblies enable a vacuum lifter to handle architectural panels and textured materials with various profiles and dimensions. | | |
| Model Numbers | 97465, 97465HV, 97466 | | |
| Vacuum Pads | Four 6" x 25" [15 cm x 64 cm] nominal dimensions, with foam rubber inserts (Model VPFS625) Four 10" [25 cm] nominal diameter, with replaceable sealing rings (Model VPFS10T ¹) | | |
| Compatible Lifter Models | MRT4-DC(3) | MRTA8-DC(3) | MRTALP8-DC(3) |
| Adjusted Pad Spread | | | |
| Maximum with VPFS625 pads | 38½" x 68¾" [98 cm x 175 cm] | 37½" x 87½" [95 cm x 222 cm] | 37" x 92¾" [94 cm x 235 cm] |
| Minimum with VPFS625 pads | 19½" x 68¾" [49 cm x 175 cm] | 16½" x 87½" [42 cm x 222 cm] | 20" x 92¾" [51 cm x 235 cm] |
| Maximum with VPFS10T pads | 43" x 55" [109 cm x 140 cm] | 42¼" x 73½" [107 cm x 187 cm] | 45¾" x 78¾" [116 cm x 200 cm] |
| Minimum with VPFS10T pads | 27" x 55" [68 cm x 140 cm] | 26¼" x 73½" [67 cm x 187 cm] | 25¾" x 78¾" [65 cm x 200 cm] |
|  Adjusted Maximum Load Capacity² | 320 lbs [145 kg] for load thickness up to 6" [15 cm] | 600 lbs [270 kg] for load thickness up to 8" [20 cm] | 600 lbs [270 kg] for load thickness up to 12" [30 cm] |
| Maximum Per-Pad Load Capacity | 150 lbs [68 kg] ³ | | |
| Weight Increase (includes both T-arm assemblies) | Approx 30 lbs [14 kg] <i>Note: This weight should be added to the Lifter Weight when determining hoisting equipment capacity.</i> | | |

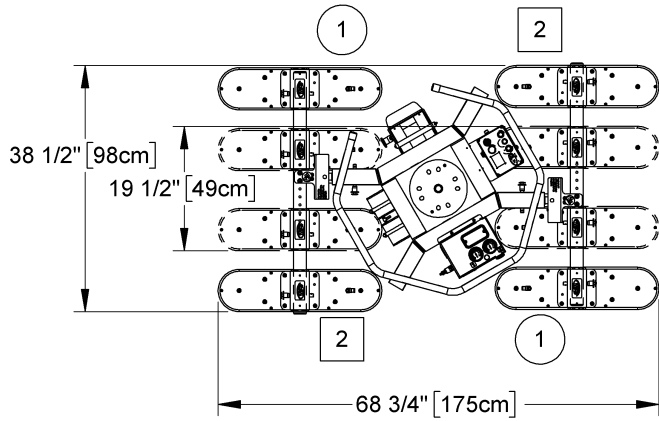
1..... Available with other rubber compounds for special purposes (see www.wpg.com).

2..... For loads with thicknesses greater than those listed, please contact WPG for help in determining the Adjusted Maximum Load Capacity of the lifter.

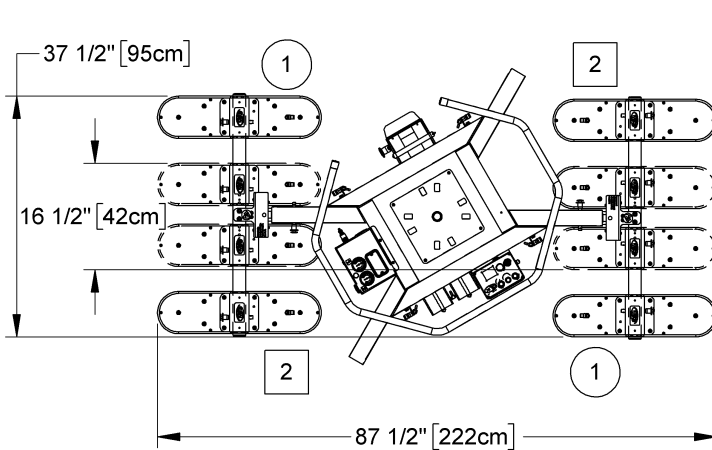
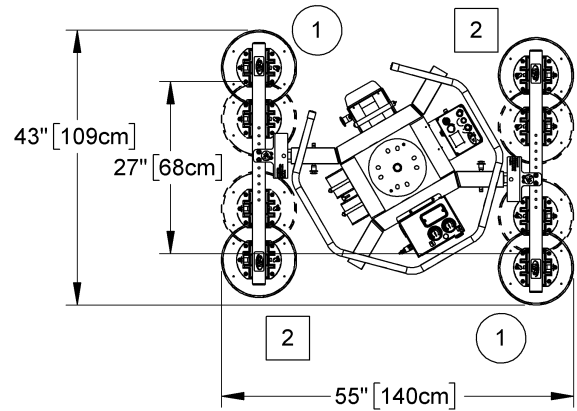
3..... Note that a load capacity calculated from the Maximum Per-Pad Load Capacity may not exceed the Adjusted Maximum Load Capacity.

Note: Before installing and using the Pad Frame T-Arm Assemblies read, understand and follow the lifter's OPERATING INSTRUCTIONS except when directed differently in these option instructions. Intended use, storage, inspections, tests and maintenance in the lifter's instructions should be understood to include options, when relevant. All warnings in the "SAFETY" section, as well as alerts in other sections, are applicable when using the Pad Frame T-Arm Assemblies.

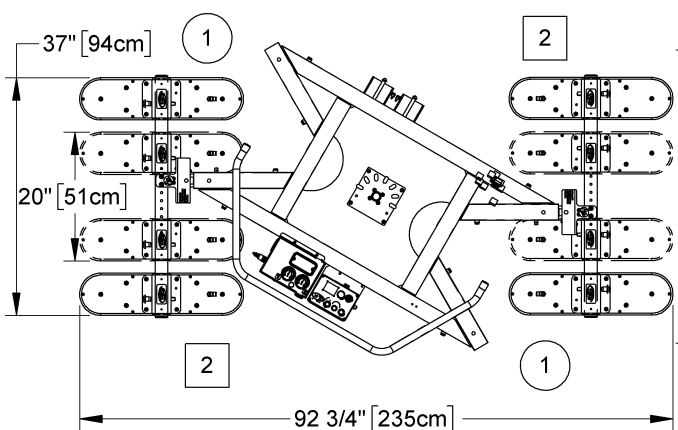
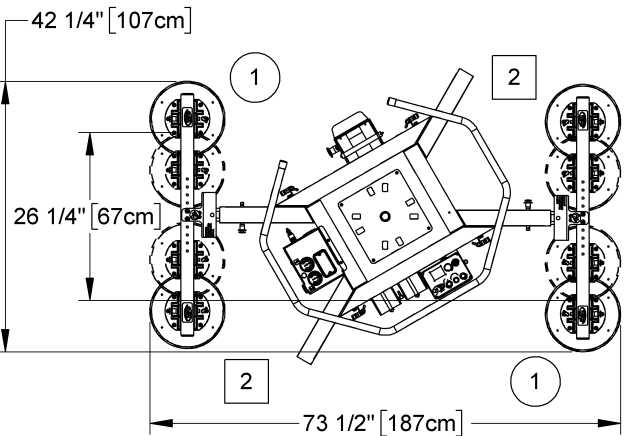
SPECIFICATIONS



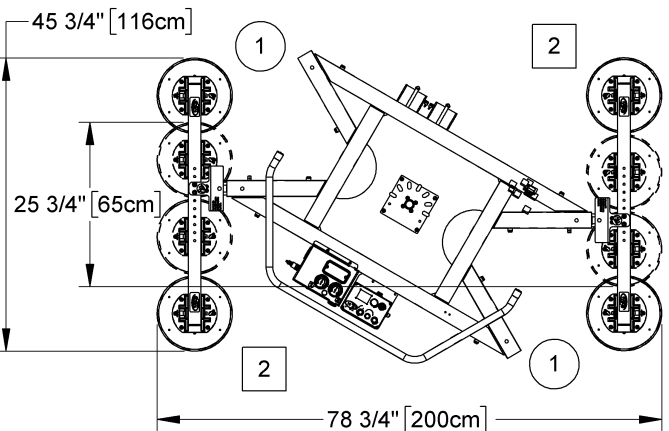
MRT
320LBS [145KG]



MRTA
600LBS [270KG]



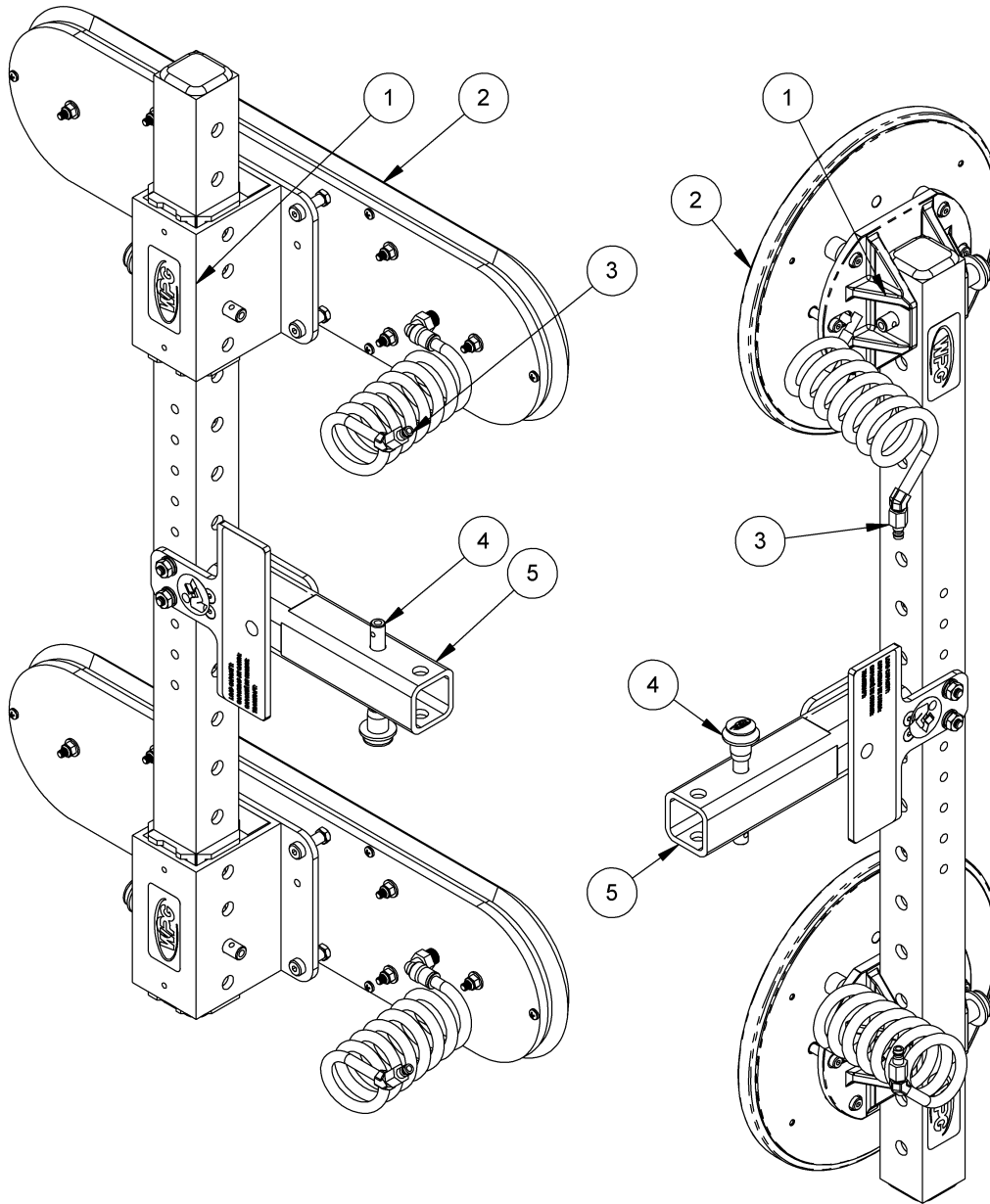
MRTALP
600LBS [270KG]



Note: In addition to the Pad Spread dimensions, the drawings above include the vacuum circuit designations (see ["TO INSTALL/REMOVE T-ARM ASSEMBLIES"](#)).

FEATURES

Features shown here are underlined> on their first appearance in each section following.



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

Note: Pad Frame T-Arm Assemblies are shown with VPSF625 pads (left) and VPSF10T pads (right). Although some of the following photos show the features in use on a different product, they all illustrate how these features function.

For information about specific parts, see [“REPLACEMENT PARTS”](#).

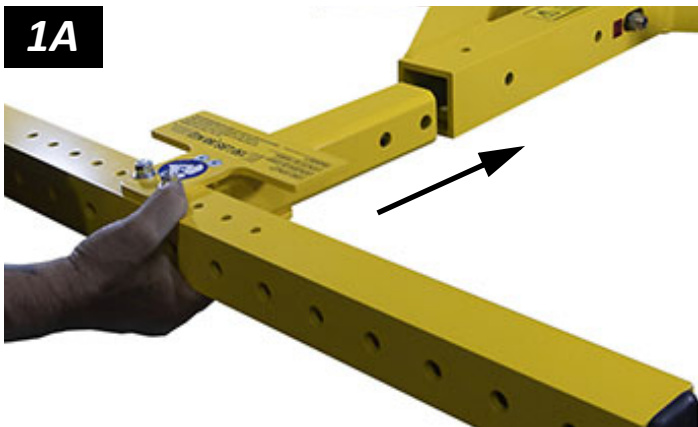
ASSEMBLY

Assemble the vacuum lifter as directed in the lifter's *OPERATING INSTRUCTIONS*. However, instead of the standard extension arms and vacuum pads, install the 2 Pad Frame T-Arm Assemblies, as directed in the following sections.

Note: Use only 2 vacuum pads on each T-arm assembly.

TO INSTALL/REMOVE T-ARM ASSEMBLIES

Note: Always position T-arms as shown in "SPECIFICATIONS".



- 1) Insert a T-arm assembly into the pad frame (fig. 1A).
- 2) Use a cotterless hitch pin, to secure the T-arm (fig. 2A).
- 3) Install the second T-arm assembly likewise.
- 4) Use the quick connectors to connect the 2 vacuum hoses from the vacuum pads on each T-arm assembly to their nearest available connection points on the pad frame (see "[To CONNECT/DISCONNECT VACUUM HOSES](#)").

Note: If the lifter is equipped with a dual vacuum system, make sure hoses are connected correctly: Green hose to circuit 1 (fig. 4A) and red hose to circuit 2 (fig. 4B).



- 5) Repeat steps 1-4, to install the second T-arm assembly.

To remove the T-arm assemblies, reverse steps 1-5. Store the assemblies in a clean, dry location.

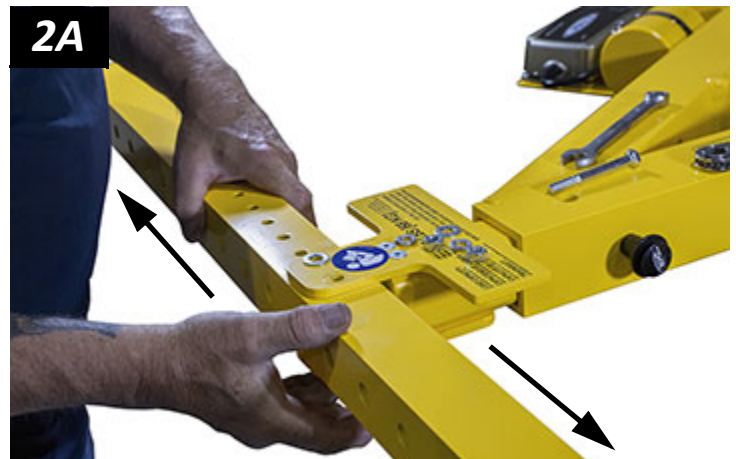
ASSEMBLY

Caution: Do not set the assemblies on surfaces that could soil or damage the vacuum pads. Protect the sealing edges of the pads by making sure each pad rests on spacers.¹

TO REPOSITION T-ARM CROSS MEMBERS

When more precise pad alignment is needed (eg, on contours of insulated panels), the cross members of the T-arm assemblies can be repositioned as follows:

Tip: Remove the pad mounts from the cross member (see [“TO REPOSITION PAD MOUNTS”](#)), to make the following steps easier.



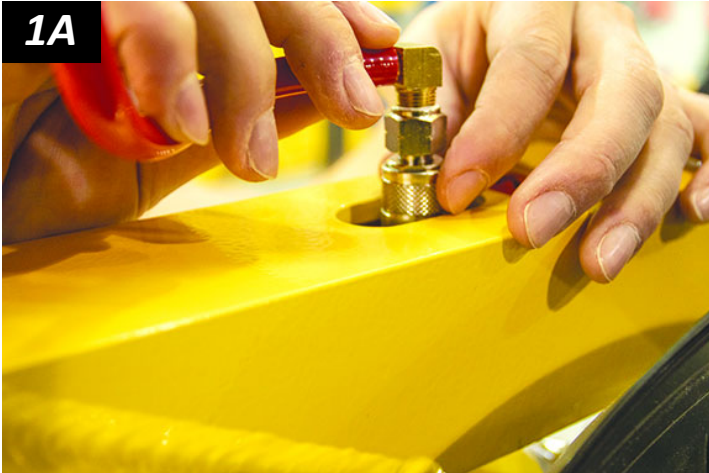
- 1) Remove the hardware (fig. 1A) connecting a cross member to the assembly's extension arm.
- 2) Move the cross member to the appropriate position (fig. 2A).
- 3) Reinstall the hardware, making sure to tighten bolts securely (fig. 3A).
- 4) Repeat steps 1-3, to reposition the other cross member.



Note: Make sure to position cross members so that each one is centered on the rotation axis as shown in [“SPECIFICATIONS”](#) (**not** centered on the assembly's extension arm).

1..... The original shipping container has integrated spacers. Use similarly shaped spacers when setting the assemblies on other surfaces.

ASSEMBLY



TO CONNECT/DISCONNECT VACUUM HOSES

- To *connect* a vacuum hose, push the male and female ends of the quick connector together until they lock (fig. 1A).
- To *disconnect* a hose, move the release ring on the female end until the quick connector separates (fig. 2A).



Make sure quick connectors seal completely and all vacuum hoses function correctly (see “Vacuum Test”).



Securely position vacuum hoses to avoid damage during lifter operation.

Note: Since MRT4-DC lifters are not equipped with quick connectors, a quick connector kit enables the use of T-arm assemblies (see “REPLACEMENT PARTS”).

BEFORE USE

When evaluating the intended use, **make sure to consider the Adjusted Maximum Load Capacity and the Adjusted Pad Spread** (see “SPECIFICATIONS” on page 2; not those listed in the lifter’s OPERATING INSTRUCTIONS).



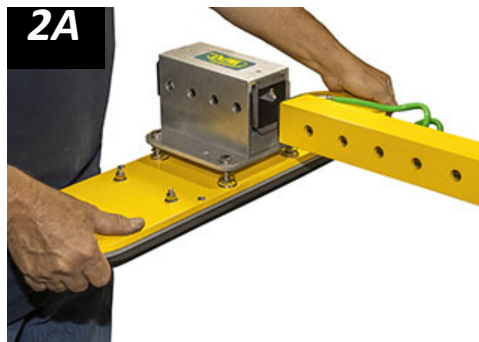
Using T-arm assemblies reduces lifter’s load capacity.

TO REPOSITION PAD MOUNTS

Before the vacuum pads contact the load, adjust the position of the sliding/movable pad mounts as necessary to maximize load support and minimize load overhang (see “INTENDED USE” in the lifter’s OPERATING INSTRUCTIONS).

- 1) Remove the cotterless hitch pin from a sliding/movable pad mount.

Note: If you removed the pad mounts earlier (see “TO REPOSITION T-ARM CROSS MEMBERS”), reinstall the mounts (fig. 2A).



- 2) Move the pad mount on the cross member to the required position and align the pin holes (fig. 2B).

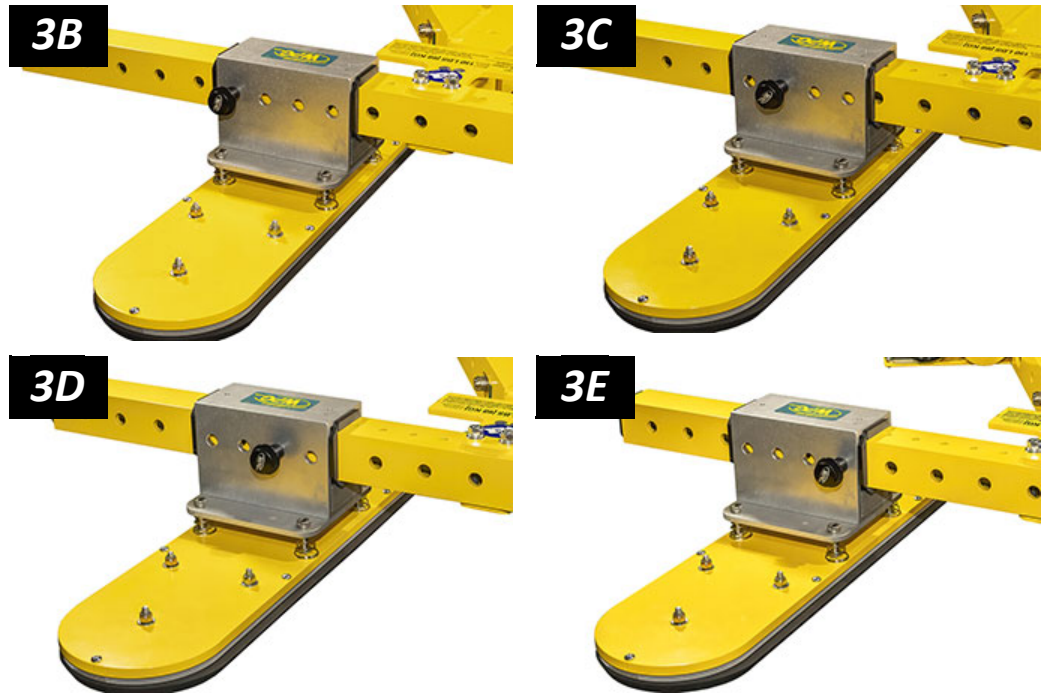
Note: Make sure pad mount positioning creates a symmetrical arrangement, as shown in “SPECIFICATIONS”.

- 3) Reinstall the pin, to secure the pad mount (fig. 3A).



USE

Note: If the cross members have been repositioned (see “TO REPOSITION T-ARM CROSS MEMBERS”), pin positions may not appear uniform from one end of a T-Arm assembly to the other; see figs. 3B-E for some possible pin installation points.



- 4) Repeat steps 1-3 to position other pad mounts as needed.
- 5) Make sure all vacuum lines are functioning correctly (see “TO CONNECT/DISCONNECT VACUUM HOSES”).

VACUUM PAD MAINTENANCE

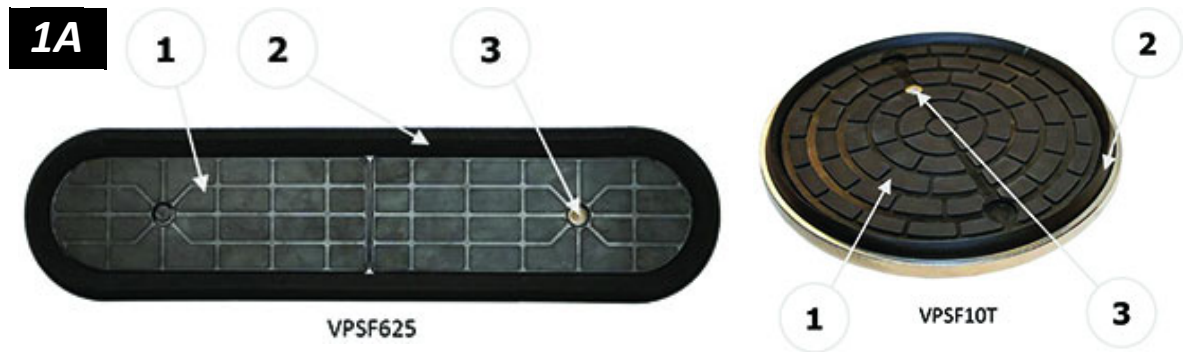
Pad-to-Load Friction Coefficient

The friction coefficient represents the lifter's ability to resist load slippage. The Maximum Load Capacity assumes a friction coefficient of 1, based on testing of clean, new, standard rubber vacuum pads on clean, dry, regular glass. *If the lifter is used under other conditions, a qualified person must first determine the effective lifting capacity.*¹

Long-term exposure to heat, chemicals or UV light can reduce the friction coefficient of vacuum pads. Replace pads and sealing rings or replaceable inserts every 2 years or more often when necessary.

Pad Inspection

Inspect each vacuum pad (fig. 1A) according to the "INSPECTION SCHEDULE" in the lifter's *OPERATING INSTRUCTIONS*



and correct the following faults before using the lifter (see "REPLACEMENT PARTS", when applicable):

- Contaminates on the face (item 1 in fig. 1A) or sealing edges (item 2 in fig. 1A).
- Filter screen (item 3 in fig. 1A) missing from face.
- Nicks, cuts, deformation or abrasions in sealing edges.



Replace any sealing ring or pad insert that has damaged sealing edges (see "TO REPLACE SEALING RING IN VPFS10T PADS" or "TO REPLACE PAD INSERTS IN VPFS625 PADS", where applicable).

1..... A "qualified person" has successfully demonstrated the ability to solve problems relating to the subject matter and work, either by possessing a recognized degree in an applicable field or a certificate of professional standing, or by possessing extensive knowledge, training and experience.

MAINTENANCE

1A



Pad Cleaning

- 1) Regularly clean the face of each vacuum pad (fig. 1A), using soapy water or other mild cleansers to remove oil, dust and other contaminants.

Solvents, petroleum-based products (including kerosene, gasoline and diesel fuel) or any other harsh chemicals can damage pads.



Never use harsh chemicals on vacuum pad.

Many rubber conditioners can leave a hazardous film on pads.



Never use rubber conditioners on vacuum pad.

- 2) Prevent liquid from entering the vacuum system through the suction hole on the pad face.
- 3) Wipe the pad face clean, using a clean sponge or lint-free cloth to apply the cleanser.¹
- 4) Allow the pad to dry completely before using the lifter.

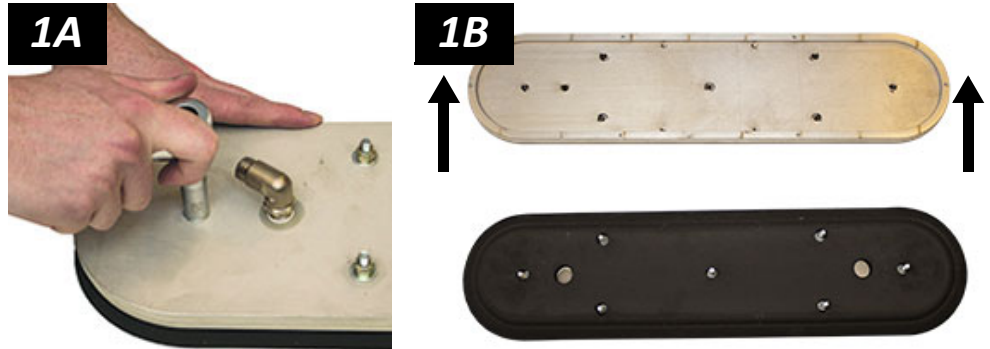
1..... A brush with bristles *that do not harm rubber* can help remove contaminants clinging to sealing edges. If these cleaning methods are not successful, contact WPG or an authorized dealer for assistance.

MAINTENANCE

TO REPLACE PAD INSERTS IN VPFS625 PADS

If the vacuum lifter has VPFS625 vacuum pads (#58383), replace its pad inserts (#49726) as follows:

- 1) Remove the 1/4-20 lock nuts and washers that secure the top plate to the face plate of the pad assembly (fig. 1A). Then remove the top plate (arrows in fig. 1B).



Note: Set aside the removed hardware.

- 2) Remove the old pad insert (fig. 2A). Then remove the white spacers (fig. 2B) from the old insert and set them aside.



Note: Leave the pad's filter screen (#15630) in place (fig. 2C).

- 3) Inspect the edge of the new pad insert, to determine which side of the insert's face has the smoother edge (circled in fig. 3A).

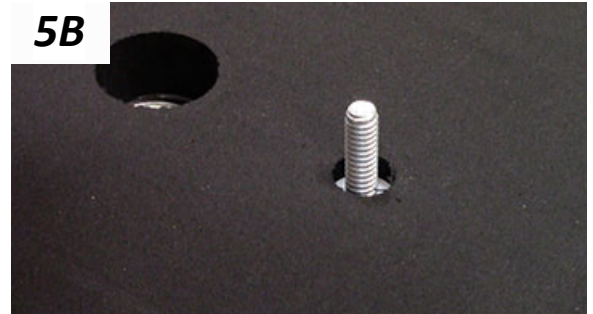
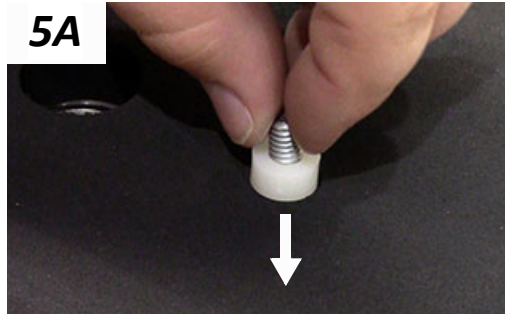


Note: The difference in the edge's smoothness will be subtle.

- 4) Install the new pad insert, making sure the smoother edge faces down (fig. 4A).

MAINTENANCE

- 5) Install the saved spacers (figs. 5A-B).




- 6) Applying pressure to the top plate, reinstall it with the saved washers and lock nuts (fig. 6A), making sure all lock nuts are securely tightened.

Note: The new insert will compress to take on the form of the old one.

Note: Replace worn nuts as needed.



Additionally, you can view a [WPG video](#) demonstrating how to replace an insert on a VPFS625 vacuum pad.

 *Note: If you have only a printed copy of these instructions, scan this QR code to access the video.*



MAINTENANCE

TO REPLACE SEALING RING IN VPFS10T PADS

If the lifter has VPFS10T vacuum pads, replace sealing rings (**#49724RT** or **#49724TT**) as follows:

- 1) Remove the old sealing ring (fig. 1A).

Note: Make sure the entire vacuum pad is clean, including the mounting groove.

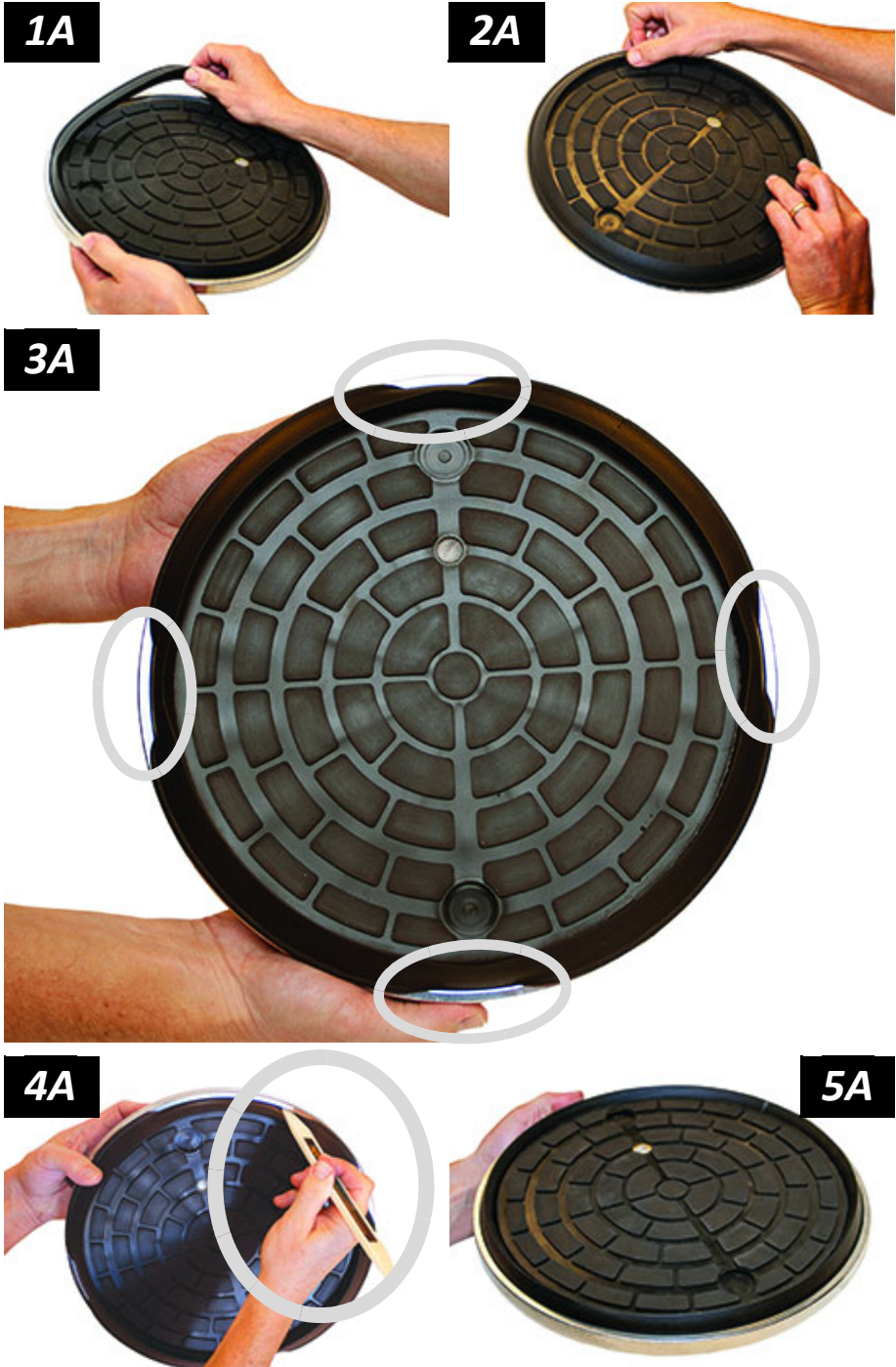
- 2) Place the inside edge of a new sealing ring against the inside edge of the mounting groove (fig. 2A).

- 3) Push the sealing ring into the mounting groove, beginning in 4 locations as shown circled in fig. 3A.

- 4) Push gently and firmly on the outside edge of the sealing ring until the flat side fits flush against the bottom of the mounting groove (fig. 4A). A pad ring installation tool (circled in fig. 4A) makes this step easier (see “REPLACEMENT PARTS” in the lifter’s *OPERATING INSTRUCTIONS*).

- 5) Make sure the sealing ring seats securely in the mounting groove, all the way around the vacuum pad (fig. 5A).

Note: If any part of the sealing ring comes out of the mounting groove, inspect the sealing ring for damage and reinstall an undamaged sealing ring.



REPLACEMENT PARTS

| Stock No. | Description | Qty. |
|-----------|--|------|
| 97467 | MRT4-DC Quick Connector Fittings Kit for T-Arm Assemblies | 1 |
| 65442AM | Vacuum Hose – 0.245" ID x 3/8" OD x 48" Length – Coiled – Green | 2 |
| 65441 | Vacuum Hose – 0.245" ID x 3/8" OD x 48" Length – Coiled – Red | 2 |
| 49726 | Vacuum Pad Insert – Model VIFS625 / 6" x 25" [15 cm x 64 cm] (for VPFS625 pads) | 4 |
| 65025 | Pad Spring – Tapered Type (for VPFS625 pads) | 4 |
| 65010 | Pad Spring – Coil Type (for VPFS10T pads) | 4 |
| 54107 | Movable Pad Mount – 2" Tubing Size (for VPFS10T pads) | 4 |
| 53124 | Pad Fitting – Elbow – 5/32" ID – Long Stem (for VPFS10T pads) | 4 |
| 49724TT | Sealing Ring Insert – Model VIFS10T2 – Closed Cell Foam (for VPFS10T pads) | 4 |
| 49724RT | Sealing Ring Insert – Model VIFS10T3 – Heat-Resistant Rubber (for VPFS10T pads) | 4 |
| 49672FT | Vacuum Pad – Model VPFS10T / 10" [25 cm] Diameter – w/Replaceable Sealing Ring | 4 |
| 49122 | End Plug – 2" x 2" x 1/4" Tubing Size | 4 |
| 29353 | Pad Cover (for VPFS10T pads) | 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 |
| 15632 | Pad Filter Screen – Small (for VPFS10T pads) | 4 |
| 15630 | Pad Filter Screen – Large (for VPFS625 pads) | 4 |
| 15310AM | Pad Fitting – Push-In Swivel Elbow – 1/4 MNPT to 3/8" OD Hose Size (for VPFS625 pads) | 4 |
| 13530 | Cotterless Hitch Pin – 1/2" x 3 1/2" | 6 |
| 10906PM | Shoulder Bolt – Socket Head – 3/8" x 1" x 5/16-18 Thread (for mounting VPFS625 pads) | 16 |
| 10900 | Shoulder Bolt – Socket Head – 5/16" x 1/2" x 1/4-20 Thread (for mounting VPFS10T pads) | 24 |

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

LIMITED WARRANTY

Wood's Powr-Grip® (WPG) 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 below to obtain warranty service. If inspection shows that the problem is due to defective workmanship or materials, WPG 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, and/or;
- the product has been damaged, misused or neglected.

If a problem is not covered under warranty, WPG 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, then WPG will proceed with repairs.

TO OBTAIN REPAIRS OR WARRANTY SERVICE

For purchases in *North America*:

Contact the WPG Technical Service Department. When factory service is required, ship the complete product – prepaid – along with your name, address and phone number to the street address listed at the bottom of this page. WPG may be reached by phone or fax numbers listed below.

For purchases in all *other localities*:

Contact your dealer or the WPG Technical Service Department for assistance. WPG may be reached by phone or fax numbers listed below.

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