INTENDED FOR USE BY PROFESSIONAL EQUIPMENT OPERATORS



**OPERATING THIS EQUIPMENT** 



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#### MANUAL TILTER, AIR-POWERED

Model number: MT1TL6FAIR

Original Instructions © Wood's Powr-Grip Co., Inc.

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# SPECIFICATIONS

De	Product escription	Designed for use with hoisting equipment, the MT1TL6FAIR lifter supports loads using vacuum and manipulates loads using manual 90° tilt motions.
	Model Number	MT1TL6FAIR
Pa	um Pad / ad Spread ard rubber <sup>1</sup> )	6" [15 cm] nominal diameter, concave (Model TL6F)
// 1.00	num Load apacity <sup>2, 3</sup>	50 lbs [25 kg]
LBS	Lifter Weight <sup>4</sup>	3.25 lbs [1.47 kg]
	Power Source	Compressed air, 80-150 psi [550-1035 kPa] line pressure, 2 SCFM [57 liters/minute] @ 80 psi [550 kPa]
	Tilt Capability	Manual, 90°
	Operating Elevation	Up to 6,000' [1,828 m]
	Operating peratures	32° — 120° F [0° — 49° C]
	Service Life	16,000 lifting cycles, when used and maintained as intended <sup>5</sup>
ASME	Standard BTH-1	Design Category "B", Service Class "0"
Trouble	eshooting Guide	TST-016_GENERIC_LEAK_TEST_rev_2014-086

1..... Available with other rubber compounds for special purposes.

2..... The Maximum Load Capacity is rated and verified at a vacuum of 16" Hg [-54 kPa] on clean, smooth, nonporous flat surfaces with a friction coefficient of 1. Rating is verified by testing on polycarbonate (or metal with a painted surface) with a coefficient of friction similar to plain (non-coated) glass and a surface temperature at approx. 70° F [21° C].

3..... Pad compound, load rigidity, strength, surface conditions, overhang, angle, center of gravity and temperature affect lifting capacity. A "qualified person" should evaluate the effective lifting capacity for each use (see definition under "Rated Load Test").

4..... Total product weight (ie, including vacuum system) is 5.4 lbs [2.45 kg]

5..... Vacuum pad, filter elements and other wear-out items are excluded.

### SPECIFICATIONS



# SAFETY

Wear personal protective equipment that is appropriate for the load material. Follow trade association guidelines.





Do not make any modifications to the lifter. Modifying the lifter will void the "LIMITED WARRANTY".

- Use the lifter only in an approved "OPERATING ENVIRONMENT" (see "INTENDED USE").
- Make sure to consider all possible effects of "INDIRECT LOADING" on lifting capacity (see "INTENDED USE").
  - Do not use a lifter that is damaged, malfunctioning, or missing parts.
  - Do not use a lifter if the sealing edge of any vacuum pad is cut or otherwise damaged.

Do not use a lifter to lift cracked or broken glass.



<sup>BS</sup> Do not exceed the Maximum Load Capacity or lift loads the lifter is not designed for (see "INTENDED USE").



Do not use a lifter if the Maximum Load Capacity or any safety label appears to be missing or obscured.



Make sure the contact surfaces of the load and vacuum pad are clean before attaching the lifter (see "MAINTENANCE").



Position the vacuum pad correctly on the load before lifting (see "OPERATION").



Do not lift a load if any vacuum indicator shows inadequate vacuum.



Keep unauthorized personnel away from the lifter, to avoid injury in case of an unintended load release.



Do not touch the vacuum release controls during a lift.



Do not allow people to ride on the lifter or the load.



Do not lift a load higher than necessary or leave suspended loads unattended.



Do not position a loaded or unloaded lifter over people.



Before servicing a powered lifter, place the power control in the inactive position and, when possible, disconnect the power source.

### **OPERATING FEATURES**

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



- 1 AIR SUPPLY VALVE
- 4 CONTROL HANDLE
- 7 AIR FILTERS

- 2 LIFT BRACKET
- 5 VACUUM PAD
- 8 VACUUM PUMP

- 3 VACUUM GAUGE
- 6 PRESSURE GAUGE
- 9 AIR PRESSURE REGULATOR

For information about specific parts, see "REPLACEMENT PARTS" and/or any separate instructions for Product Options.

# ASSEMBLY

- 1) Remove all shipping materials and save them with the shipping container for future use.
- 2) Suspend the lifter from appropriate hoisting equipment:
  - 2.1) Select a crane and/or hoist rated for the Maximum Load Capacity plus the Lifter Weight.

Note: Any lifter use must comply with all statutory or regulatory standards for hoisting equipment in your region.



2.2) Attach the hoisting hook to the eye of the <u>lift bracket</u> (arrow in fig. 2A). Use a clevis if the eye is too small for the hook.

Make sure hook has restraining latch (arrow in fig. 2B).

Only use rigging rated for Maximum Load Capacity plus Lifter Weight.

3A

Note: Use rigging (figs. 2B-C) as

needed to make sure the hook does not interfere with the load.

- 3) Remove the pad cover (fig. 3A) and save it for future use.
- Mount the vacuum generating system in a location suitable for operating both the lifter and the hoisting equipment (mounting hardware not supplied; mounting holes are shown in fig. 4A).

Securely position vacuum hose to avoid damage during lifter operation.

Note: Consult the hoisting equipment manufacturer to determine how to mount the vacuum generating system in a safe location that will not interfere with hoisting.



### ASSEMBLY

 Connect the lifter to an appropriate compressed air supply (see Power Source under "SPECIFICATIONS"):

Then connect the female quick connector to the male quick connector mounted on the <u>air supply</u> valve (figs. 5A-B). Qualified service personnel should install female quick connector (supplied) on air line, when needed.



Securely position air line to avoid damage during lifter operation.



6) Adjust the air pressure regulator to supply 80 psi [550 kPa]:<sup>1</sup>

Note: <u>Vacuum pad</u> must not be attached to any surface while adjusting the regulator.

- 6.1) Place the <u>air</u> <u>supply valve</u> lever *parallel* with the vacuum line (ie, in the "on" position — fig. 6A).
- 6.2) Pull up the adjustment collar on top of the regulator



(fig. 6B) and turn the collar clockwise to increase pressure or counter-clockwise to decrease pressure (fig. 6C).

<sup>1.....</sup> Exceeding this pressure consumes more air and does not improve lifter performance.

# ASSEMBLY

6.3) When the <u>pressure gauge</u> registers a minimum air pressure of 80 psi [550 kPa], push down the collar to lock it in place (fig. 6D).



Note: Place the <u>air supply valve</u> lever perpendicular to the air line (ie, in the "off" position — fig. 6E) when the lifter is not in use; otherwise, the air compressor will cycle frequently.



7) Perform tests as required under "TESTING".

# INTENDED USE

### LOAD CHARACTERISTICS

Make sure the vacuum lifter is intended to handle each load according to these requirements:

### **S** Do NOT lift explosives, radioactive substances or other hazardous materials.

- The load weight must not exceed the Maximum Load Capacity.
- The load must be a single piece of relatively nonporous material with a flat and relatively smooth contact surface.<sup>1, 2</sup> To determine whether the load is too porous or rough, perform the "Lifter/Load Compatibility Test".
- The load's contact surface must be able to obtain a friction coefficient of 1 with the lifter's <u>vacuum pad</u> (see "Pad-to-Load Friction Coefficient"). Otherwise, the capacity should be derated appropriately.
- The load's surface temperature must not exceed the Operating Temperatures.<sup>3</sup>
- The load's *minimum* length and width are determined by the current Pad Spread (see "SPECIFICATIONS").
- The load's maximum length and width are determined by its allowable overhang.<sup>4</sup>
- Although load thickness is not restricted, it may affect the lifter's hang angle and the amount of operator effort required for handling loads.

Note: Standard vacuum pads can stain or deform load surfaces with light colors or soft coatings. Test such surfaces for damaging effects before using the lifter on them.<sup>5</sup>



°F [°C]

<sup>1.....</sup> Although concave vacuum pads can also attach to some curved loads, curvature can reduce lifting capacity. Contact WPG for more information.

<sup>2.....</sup> A "single piece" of material includes curtainwall assemblies, unitized glazing systems and similar construction units.

<sup>3.....</sup> Vacuum pads made from a heat-resistant rubber compound can enable you to lift loads with higher surface temperatures. Contact WPG or an authorized dealer for more information.

<sup>4.....</sup> The allowable overhang is the amount of load material that can extend sideways beyond the vacuum pad without breaking or otherwise being damaged. This depends on the load material, its thickness, and the angle of handling (if any). Since every material has different physical properties, the allowable overhang must be evaluated separately for each load type. Contact WPG or an authorized dealer for more information.

<sup>5.....</sup> Alternative rubber compounds are available for these purposes. Contact WPG or an authorized dealer for more information.

Make sure to account for dynamic loading or other inadvertent loading that can negatively affect lifting capacity, such as:

 Weight amplification that results when a loaded vacuum lifter abruptly starts/stops moving, changes direction or bounces up

and down (eg, when a telehandler transports a loaded lifter across rough terrain).

 External force that effectively increases the weight of a lifter's attached load (eg, when a load of sheet material reacts to wind gusts).

#### **OPERATING ENVIRONMENT**

**INDIRECT LOADING** 

Make sure the lifter is suitable for each work environment, given the following restrictions:

- This lifter is not intended for any environment that is dangerous to the operator or damaging to the lifter. Avoid environments containing explosives, caustic chemicals and other dangerous substances.
- The work environment is limited by the Operating Elevation and Operating Temperatures.<sup>1, 2</sup>
- The lifter is not designed to be watertight. Do not use it in rain or other unsuitable conditions.

**CE/UKCA** — A secondary positive holding device is required to lift loads on constructions sites or in other "high risk zones" (see EN 13155).

#### DISPOSAL OF THE LIFTER

After the Service Life of the lifter has ended (see "SPECIFICATIONS"), dispose of it in compliance with all local codes and applicable regulatory standards.

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Never use lifter

in dangerous

Indirect loading can reduce lifting capacity.

Moisture can reduce

lifting capacity.

environments.

INTENDED LISE

<sup>1.....</sup> Although lifter use may be possible at higher elevation, lifting capacity is reduced whenever the lifter is unable to attain vacuum in the green range on the vacuum gauge. Contact WPG for more information.

<sup>2.....</sup> Special provisions may allow the lifter to operate outside the specified temperature range. Contact WPG for more information.

### **BEFORE USING THE LIFTER**

Determine whether the vacuum lifter is capable of each intended task (see "SPECIFICATIONS" and "INTENDED USE"). Then complete the following preparations:

#### **Taking Safety Precautions**

 Be trained in all industry and regulatory standards for lifter operation in your region.



Read all directions and safety rules before using lifter.

Always wear appropriate personal protective equipment.

 Follow trade association guidelines about precautions needed for each load material.

#### **Performing Inspections and Tests**

- Follow the "INSPECTION SCHEDULE" and "TESTING".
- Service the 2 <u>air filters</u> whenever a bowl contains liquid or other contaminants, or an element appears dirty (see "AIR FILTER MAINTENANCE" in SERVICE MANUAL).



Examine air filters regularly and service when needed.

### TO ATTACH THE PAD TO A LOAD

#### **Generating Airflow**

Place the <u>air supply valve</u> lever in the "on" position (fig. 1A — see "ASSEMBLY").



Never place air supply valve lever in "off" position while operating lifter.

The vacuum pump is designed to run continuously. Any interruption of airflow during lifter operation could result in an unintentional load release and personal injury (see "In Case of a Power Failure").



#### Positioning the Lifter on the Load

- Make sure the contact surfaces of the load and <u>vacuum pad</u> are clean (fig. 1B — see "Pad Cleaning").
- Determine which will be the top edge of the load while lifting, and position the vacuum pad near that edge, centering the pad from left to right (fig. 2B). Make sure the pad will fit entirely on the load.



**1B** 

#### Sealing the Pad on the Load

Place the <u>vacuum pad</u> in contact with the load surface. Then press the lifter firmly against the load to help the vacuum pad begin to seal (fig. 1A).<sup>1</sup>



#### **Reading the Vacuum Gauge**

A <u>vacuum gauge</u> shows the current vacuum level in positive inches of Hg and negative kPa:

- Green range (≥16" Hg [-54 kPa]): Vacuum level is sufficient to lift the maximum load weight (fig. 1B).
- Red range (<16" Hg [-54 kPa]): Vacuum level is not sufficient to lift the maximum load weight (fig. 2B).



If it takes more than 5 seconds for the vacuum level to reach 5" Hg [-17 kPa], press on the <u>vacuum pad</u> until it seals completely.

Once the pad has sealed, the lifter should be able to maintain sufficient vacuum for lifting, except when used above the maximum Operating Elevation.<sup>2</sup> If it does not, perform the "Vacuum Test".

<sup>1.....</sup> Although a vacuum pad may become distorted during shipping or storage, this condition should correct itself with continued use.

<sup>2.....</sup> If the lifter is used above the maximum Operating Elevation (see "SPECIFICATIONS"), it may not be able to maintain sufficient vacuum for lifting. Contact WPG for more information.

### TO LIFT AND MOVE THE LOAD

#### Interpreting the Vacuum Gauge

Vacuum is sufficient to lift the Maximum Load Capacity whenever the <u>vacuum gauge</u> registers in the green range.

Never lift load unless vacuum gauge registers in the green range, because premature lifting could result in load release and personal injury.

**1**A

#### Monitoring the Vacuum Gauge

Monitor the <u>vacuum gauge</u> (fig. 1A) throughout the entire lift.



Make sure the vacuum gauge remains completely visible.

The <u>vacuum pump</u> runs continuously to maintain sufficient vacuum for lifting the maximum load weight. However, if the *vacuum gauge shows a level less than 16" Hg [greater than -54 kPa]:* 

 Keep everyone away from a suspended load until it can be safely lowered to a stable support.



Stay clear of any suspended load while gauge warns of insufficient vacuum.

- 2) Stop using the lifter until the cause of the vacuum loss can be identified: Conduct the "Pad Inspection" and perform the "Vacuum Test".
- 3) Correct any faults before resuming normal operation of the lifter.

#### **Controlling the Lifter and Load**

When the lifter is ready, use the hoisting equipment to raise the lifter and load as needed.

Use the <u>control handle</u> (fig. 1B) to keep the lifter and load in the required position.

Once there is enough clearance, you may move the load as required.



#### In Case of a Power Failure

Although the lifter is designed to support the load for at least 5 minutes without power, this depends on many factors, including the "LOAD CHARACTERISTICS" and the condition of the <u>vacuum</u> <u>pad</u> (see "VACUUM PAD MAINTENANCE").

If a power failure occurs, keep everyone away from a suspended load until it can be safely lowered to a stable support. Correct any faults before resuming normal operation of the lifter.



Stay clear of any suspended load during power failure.

### TO TILT THE LOAD

- Make sure the load has enough clearance to tilt without contacting anyone or anything.
- 2) Tilt the load to the position needed:
  - Tilting the load to the *upright* position happens automatically when it is lifted (fig. 1A).
  - Tilting the load to the *flat* position is accomplished during the landing (see section below).

### TO LAND THE LOAD

- For a landing in the *upright* position, simply lower the load onto an appropriate support.
- For a landing in the *flat* position, lower the lifter until the bottom edge of the load is supported.

Then continue to lower the lifter, carefully allowing the load and lifter to tilt forward and downward (fig. 1B and inset) until the entire load rests on the support.





#### TO RELEASE THE PAD FROM THE LOAD



### Make sure load is at rest and fully supported before releasing vacuum pad.

Do not move lifter until pad releases completely, because such movement could result in load damage or personal injury.

- 1) Initiate release of the vacuum pad:
  - Pull a release tab on the pad (circled in fig. 1A), *or*;



• Place the <u>air supply valve</u> lever in the "off" position (fig. 1B).



3) Perform the Every-Lift Inspection (see "INSPECTION SCHEDULE").

Now, the lifter can be attached immediately to another load.<sup>1</sup>

**1**B

<sup>1.....</sup> If you released the vacuum pad by pulling its tab *and* the next lift is *not* imminent, place the air supply valve lever to the "off" position until you are ready to lift another load.

### AFTER USING THE LIFTER

- 1) Place the <u>air supply valve</u> lever in the "release" position, as previously directed.
- 2) Use the hoisting equipment to lower the vacuum lifter gently onto a stable support. Then detach the hoisting hook from the <u>lift bracket</u>.

Caution: Do not set the lifter on surfaces that could soil or damage the vacuum pad.

#### **Storing the Lifter**

- 1) Disconnect the compressed air supply (see "ASSEMBLY").
- Use the cover supplied to keep the <u>vacuum pad</u> clean (fig. 1A).

**CE/UKCA** — To prevent the lifter from tipping over on relatively horizontal surfaces, place the vacuum pad facedown on a clean, smooth, flat surface.



#### **Transporting the Lifter**

Secure the lifter in the original shipping container with the original shipping materials or equivalent.

### **INSPECTION SCHEDULE**

Perform inspections according to the following frequency schedule. If any fault is found, correct it and perform the next most frequent inspection before using the vacuum lifter.

Note: If a lifter is used less than 1 day in a 2-week period, perform the Periodic Inspection before using it.

Action	Every Lift	Frequent <sup>1</sup> (every 20-40 hrs)	Periodic <sup>2</sup> (every 250-400 hrs)
Examine <u>vacuum pad</u> for contaminants or damage (see "Pad Inspection").	✓	$\checkmark$	✓
Examine load surface for contaminants or debris.	✓	$\checkmark$	✓
Examine controls and indicators for damage.	✓	✓	✓
Examine lifter's structure for damage.		✓	✓
Examine vacuum system for damage (including <u>vacuum</u> <u>pads</u> , fittings and hoses).		✓	✓
Examine <u>air filters</u> for conditions requiring service (see "AIR FILTER MAINTENANCE" in <i>SERVICE MANUAL</i> ).		✓	~
Perform "Vacuum Test".		✓	✓
Check for unusual vibrations or noises while operating lifter.		✓	✓
<ul> <li>Examine entire lifter for evidence of:</li> <li>looseness, excessive wear or excessive corrosion</li> <li>deformation, cracks, dents to structural or functional components</li> <li>cuts in vacuum pad or hoses</li> <li>any other hazardous conditions</li> </ul>			~

1..... The Frequent Inspection is also required whenever the lifter has been out of service for 1 month or more.

2..... The Periodic Inspection is also required whenever the lifter has been out of service for 1 year or more. Keep a written record of all Periodic Inspections. If necessary, return the lifter to WPG or an authorized dealer for repair (see "REGISTRATION AND LIMITED WARRANTY").

### TESTING

Perform the following test to determine whether or not a load surface is too porous or rough:

#### Lifter/Load Compatibility Test<sup>1</sup>

- 1) Make sure the vacuum generating system is functioning correctly (see "Vacuum Test").
- 2) Thoroughly clean the load surface and the <u>vacuum pad</u> (see "Pad Cleaning").
- 3) Place the load in the upright position on a stable support.
- 4) Attach the vacuum pad to the load as previously directed.
- 5) After the vacuum level appears in the green range on the <u>vacuum gauge</u>, place the <u>air</u> <u>supply valve</u> in the "off" position (()).
- 6) Raise the load a minimal distance, to make sure it is supported by the lifter.



Take precautions in case load should fall during test.

- 7) Watch the <u>vacuum gauge</u>: Starting from a vacuum level of 16" Hg [-54 kPa], the lifter must maintain a vacuum level greater than 12" Hg [less than -41 kPa] for 5 minutes.<sup>2</sup> If not, lifting this load requires additional precautions (eg, a load sling). Contact WPG for more information.
- Lower the load after 5 minutes or before the vacuum level diminishes to 12" Hg [increases to -41 kPa].

<sup>1.....</sup> The "Pad-to-Load Friction Coefficient" can affect the outcome of this test.

<sup>2.....</sup> Under CE and UKCA requirements, the lifter must maintain a vacuum level greater than 8" [less than -27 kPa].

Perform the following tests before placing the lifter in service *initially, following any repair,* when directed in the *"INSPECTION SCHEDULE"*, or *whenever necessary*:

#### **Operational Tests**

Test all features and functions of the lifter (see "OPERATING FEATURES" and "OPERATION").

#### Vacuum Test

- 1) Clean the face of the <u>vacuum pad</u> (see "Pad Cleaning").
- 2) Use a test load with weight equal to the Maximum Load Capacity, a clean, smooth, nonporous surface and other appropriate "LOAD CHARACTERISTICS".<sup>1</sup>
- 3) Attach the lifter to the test load as previously directed.
- After the vacuum level appears in the green range on the <u>vacuum gauge</u>, raise the load a minimal distance and place the <u>air supply valve</u> in the "off" position (○).

Take precautions in case load should fall during test.

- 5) Watch the vacuum gauge: The vacuum level should not decrease by more than 4" Hg [increase by more than 14 kPa] in 5 minutes.
- 6) Lower the load after 5 minutes or whenever a lifter fails the test, and release the load as previously directed.
- Qualified service personnel must correct any fault in the vacuum system before returning the lifter to service.

Never use lifter that has failed test.

This service must be performed by qualified service personnel.



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<sup>1.....</sup> The load should have either a flat surface or no more curvature than the lifter is designed for, if any.

#### Rated Load Test<sup>1</sup>

The following steps must be performed or supervised by a qualified person:<sup>2</sup>

1) Use a test load that weighs 125% (±5%) of the Maximum Load Capacity and has the appropriate "LOAD CHARACTERISTICS".



- 3) Position the load to produce the greatest stress on the lifter consistent with "INTENDED USE".
- 4) Raise the load a minimal distance and leave it suspended for 2 minutes.
- 5) Once the test is completed, lower the load for release as previously directed.
- Inspect the lifter for any stress damage, and repair or replace components as necessary to successfully pass the test.



Take precautions in case

load should fall during test.

7) Prepare a written report of the test and keep it on file.

<sup>1.....</sup> An equivalent simulation may also be used. Contact WPG for more information.

<sup>2.....</sup> 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

Note: Refer to **SERVICE MANUAL #36112** when applicable.

### VACUUM PAD MAINTENANCE

#### Pad-to-Load Friction Coefficient

The friction coefficient represents the lifter's ability to resist load slippage. The Maximum Load Capacity is based on a friction coefficient of 1, as determined by testing of clean, new, standard rubber vacuum pads on clean, dry, regular glass. *If the lifter is used under any* 

other conditions, a qualified person must first determine the effective lifting capacity.<sup>1</sup>

Long-term exposure to heat, chemicals or UV light can damage vacuum pads. Replace pads every 2 years or more often when necessary.

#### **Pad Inspection**

Inspect the <u>vacuum pad</u> (fig. 1A) according to the "INSPECTION SCHEDULE" and correct the following faults before using the lifter (see "REPLACEMENT PARTS", when applicable):

- Contaminants 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.

Replace any pad that has damaged sealing edges.

- Nicks, cuts, deformation or abrasions in sealing edges.
- Wear, stiffness or glaze.



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<sup>1.....</sup> 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

#### **Pad Cleaning**

 Regularly clean the face of the <u>vacuum</u> **1**A pad (fig. 1A), using soapy water or other mild cleansers to remove oil, dust and other contaminants.



### Never use harsh chemicals on vacuum pad.

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



Never use rubber conditioners on vacuum pad.

Many rubber conditioners can leave a hazardous film on vacuum pads.

- 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.<sup>1</sup>
- 4) Allow the pad to dry completely before using the lifter.



<sup>1.....</sup> 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.

# **REPLACEMENT PARTS**

Stock No.	Description	Qty.
65440	Vacuum Hose – 0.245" ID x 3/8" OD – Red	*
65436	Pressure Hose – 1/4" ID x 1/2" OD	*
53128	Hose Fitting – Tee – 5/32" ID	1
49405T	Vacuum Pad – Model TL6F / 6" [15 cm] Diameter – Concave	1
29312	Pad Cover – 6" [15 cm] Diameter	1
15632	Pad Filter Screen – Small	1

\* — Length as required; sold by the inch (approx 2.5 cm).

#### See SERVICE MANUAL #36112 for additional parts.

#### Service only with identical replacement parts, AVAILABLE AT WPG.COM OR THROUGH AN AUTHORIZED WPG DEALER

# **REGISTRATION AND LIMITED WARRANTY**

### TO REGISTER THIS WPG PRODUCT

Go to the *PRODUCT REGISTRATION* page at wpg.com and complete the form. Registration keeps you advised of important updates and notifications, and simplifies inquiries to WPG regarding your product. Registration is *not* required to activate your Limited Warranty (see next section).

### **ABOUT THE LIMITED WARRANTY**

*Note: Read the WARRANTY RETURN FORM at wpg.com for important details about the Limited Warranty.* 

Wood's Powr-Grip<sup>®</sup> (WPG) products are warranted to be free from defects in manufacturing and materials for 1 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 product has a defect, WPG will repair or replace the product without charge.



#### **Obtaining Warranty Service or Repair Service**

**For customers** *in the U.S. and Canada*: Go to the *EXCHANGES, REPAIRS, & WARRANTIES* page at wpg.com and click the applicable link. Alternatively, you may contact the WPG Technical Service Department (see contact information below).

**For customers** *in all other localities*: Contact the WPG Technical Service Department (see contact information below) or your dealer for assistance.

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