

# **MOTORVAC<sup>®</sup>**

## **Diff-Vac 1000**

**Differential Fluid Service System**

**Part No. 500-9025**



USER MANUAL

**CE** **ISO 9001**  
CERTIFIED

## Introduction

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Congratulations on your selection of the Diff-Vac 1000 Service Unit.

By choosing this product, you are acquiring a simple and trouble free method for performing fluid system evacuation and refill services.

The Diff-Vac 1000 is designed to service most automotive applications by exchanging most of the fluid in engine oil pans, manual transmissions and differentials. Connections to the vehicle are achieved with the supplied adapters.

Once connected, the unit can be safely used to:

- Vacuum out the old fluid.
- Refill vehicle with new fluid from “clean” tank.

Thank you for choosing MotorVac.

Sincerely,

The MotorVac Team.



**WARNING**

Do NOT use with brake fluid!

Have all associated personnel study this Operators Manual completely to become thoroughly familiar with the Diff-Vac1000 before operation.

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## WARNINGS

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- Pressurized equipment, systems or tanks can break or leak.

**Do not exceed the maximum pressure rating of equipment. Wear safety goggles or shield and protective clothing appropriate to the fluid.**



*Pressurized fluid striking the body can cause personal injury. Flammable fluids such as gasoline, propane, etc. can ignite or explode and cause injury.*



- Fluids can leak or escape.



**Use only well ventilated areas.**

*Breathing vapors or fluids from leaks can cause illness or injury.*



- Pressurized air or fluid stream can propel dust or particles.

**Do not direct air or fluid stream at your body or at others.**

*Flying particles, air or fluid entering body can cause injury.*



- Improper use or maintenance of pressurized equipment can cause leaks or rupture

**Read the following instructions.**



*Leaking of pressurized equipment can cause injury.*

## System Features and Functions

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- A. Service Hoses
- B. Hose Selector Valve – Used to select Drain or Refill
- C. Adapters – The machine comes equipped with a 5/16” and 1/4” adapter. Always use the larger adapter if possible. Ensure adapter is not kinked or damaged.
- D. Adapter Storage – Place adapters in holder when not in use. The machine can be used to remove fluid from the holder if it becomes full.
- E. Control Panel – See Controls for details.
- F. Clean Fluid Tank – Fill with clean fluid before a service.
- G. Waste Tank – Used to collect waste fluid.
- H. Air Inlet Port – Connect shop air supply to this port. (Air Nipple, Not supplied)

## Controls



- A. Waste Fluid Filter
- B. Pump Selector Valve
- C. Clean Fluid Filter
- D. Hose Selector Valve

## Initial Setup

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1. Connect appropriate air nipple to air inlet port. (Use 1" wrench to hold hex when installing air nipple)
2. Install new fluid tank on side of cabinet using supplied screws and spacers.
3. Connect hose to the bottom of the clean fluid tank

## Initial System Flush

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The Diff-Vac 1000 is tested with light weight oil. To remove any residual light weight oil remaining in the outlet hose perform the following procedure:

1. Pour 1qt (946ml) gear oil into Clean Fluid Tank.
2. Turn Hose Selector Valve to Exhaust position.
3. Direct hose outlet waste fluid reservoir.
4. Connect shop air inlet port.
5. Turn Pump Selector Valve to Clean Fluid.
6. Turn Pump Selector Valve to off when residual oil is purged.

## Operating Instructions

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1. Ensure Pump Selector Valve is in OFF position.
2. Connect supply air line to coupler on Air Inlet Port.
3. Fill the unit's Clean Tank with new gear oil.
4. Connect appropriate adapter to Hose Selector Valve assembly. (the larger diameter will yield a faster flow rate)
5. Place adapter into differential. Place the end of the tube as close as possible to the bottom of the reservoir.
6. To remove used fluid from the differential turn the Hose Selector Valve to INTAKE position and the Pump Selector Valve to WASTE fluid position.
7. Once used fluid is removed, turn Pump Selector Valve to OFF position.
8. To refill differential with clean fluid turn Hose Selector Valve to EXHAUST position and Pump Selector Valve to CLEAN fluid position.
9. Once refilled turn Pump Selector Valve to OFF position.

TIP – To stop the flow instantly turn the hose selector valve to off position. Residual pressure will remain in the hose.

## Troubleshooting

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Problem	Possible Cause
Neither pump will turn on	Ensure shop air is properly connected. Check internal pressure regulator.
Suction is slower than it used to be	If gear oil is cold it will be very thick and will flow slowly. Check adapter for kinks or other damage. Use larger adapter whenever possible. Clean screen filters on control panel.

## Parts

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**Please refer to the part numbers below when ordering parts for this unit.**

Part #	Description
050-2430	Pump Air Operated
98820975	Ball Valve
98820311	Air Pressure Regulator
200-9031	Adapter Diff-Vac 5/16"
200-9030	Adapter Diff-Vac 1/4"
050-2435	Filter

## ORDERING PARTS

Parts for the unit may be ordered by calling MotorVac Customer Service at (800) 841-8810 or (905) 615-8620. Please have your model and serial numbers available.

[www.motorvac.com](http://www.motorvac.com)  
[info@motorvac.com](mailto:info@motorvac.com)





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