

# **VEVOR<sup>®</sup>**

## **TOUGH TOOLS, HALF PRICE**

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# **PRESSURE WASHER PUMP USER MANUAL**

**MODEL: KXD1810G/KXA1810G**

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"Save Half", "Half Price" or any other similar expressions used by us only represents an estimate of savings you might benefit from buying certain tools with us compared to the major top brands and does not necessarily mean to cover all categories of tools offered by us. You are kindly reminded to verify carefully when you are placing an order with us if you are actually saving half in comparison with the top major brands.

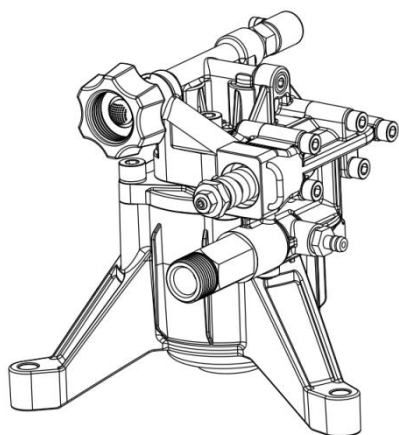


# VEVOR®

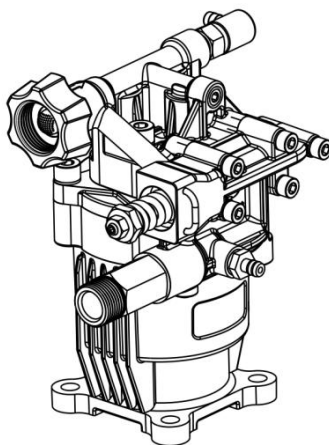
TOUGH TOOLS, HALF PRICE

## PRESSURE WASHER PUMP

**KXD1810G**



**KXA1810G**



### NEED HELP? CONTACT US!

Have product questions? Need technical support? Please feel free to contact us:

 [CustomerService@vevor.com](mailto:CustomerService@vevor.com)

This is the original instruction, please read all manual instructions carefully before operating. VEVOR reserves a clear interpretation of our user manual. The appearance of the product shall be subject to the product you received. Please forgive us that we won't inform you again if there are any technology or software updates on our product.



## GENERAL INFORMATION

### Purpose of the manual

The manufacturer has provided this manual to provide the operating instructions and the criteria to be complied with when installing, using, and maintaining the pump identified by the designation on the cover.

The manufacturer supplies the original instructions in the English language.

The manufacturer may supply the original instructions in other languages in response to statutory or commercial requirements.

If the pump is sold, the seller must pass on this manual to the new owner along with the appliance.

The instructions are intended for the skilled, suitably trained operators who carry out the installation and routine maintenance procedures.

Refer to the table of contents for rapid access to the topics covered.

The manufacturer reserves the right to amend the manual without notice unless the amendments refer to the pump's level of safety.

The purchaser must ensure that the installation is designed in accordance with the instructions in this manual, statutory requirements, and the relevant national and local regulations.

The technical instructions in this "Use and Installation Manual" are the property of the manufacturer and must be treated as confidential.

There may be differences between the illustrations and the pump's actual conformation, but any such differences will not affect the clarity of the instructions. If in doubt, request the necessary explanations from the manufacturer.

The symbols shown and described below are used to identify safety risks or important information.



### Danger-Warning

Identifies information or procedures the failure to comply with, which may constitute a serious threat to health and safety.



## Caution

Identifies information or procedures the failure to comply with, which may constitute a threat to health and safety or cause damage.



## Information

Identifies useful and important information or procedures that should be borne in mind.

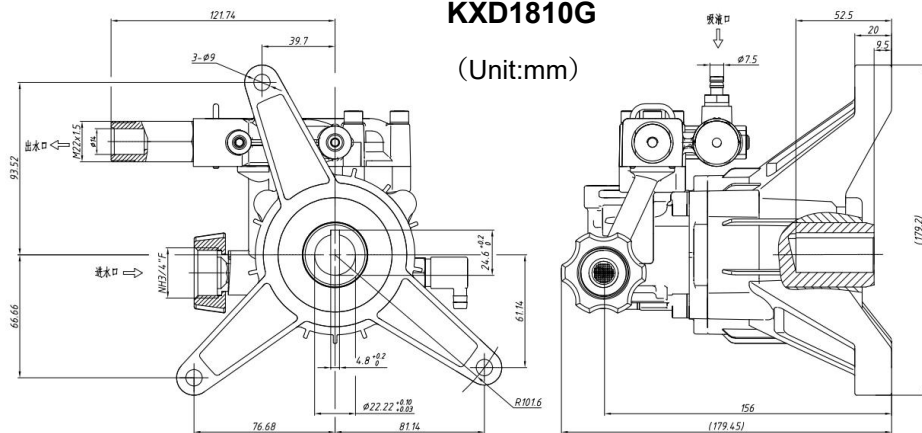
## TECHNICAL INEORMATION

| Product Specifications and Packing List |                                                                                                                                 |                                                                                                                                 |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Model                                   | KXD1810G                                                                                                                        | KXA1810G                                                                                                                        |
| Working Pressure                        | 3100 PSI                                                                                                                        | 3100 PSI                                                                                                                        |
| Gun Closing Pressure                    | 3400 PSI                                                                                                                        | 3400 PSI                                                                                                                        |
| Factory Set Pressure                    | 2300-2400 PSI                                                                                                                   | 2300-2400 PSI                                                                                                                   |
| Matching Horsepower                     | 6.5-7/HP                                                                                                                        | 6.5-7/HP                                                                                                                        |
| Maximum Flow                            | 2.5 GPM                                                                                                                         | 2.5 GPM                                                                                                                         |
| Adaptive Model                          | 196-230CC                                                                                                                       | 196-230CC                                                                                                                       |
| Packing List                            | 1 x Pressure Washer Pump;<br>1 x Siphon;<br>3 x Bolts;<br>1 x Shaft Key;<br>3 x Flat Pads;<br>3 x Spring Washers;<br>1 x Manual | 1 x Pressure Washer Pump;<br>1 x Siphon;<br>4 x Bolts;<br>1 x Shaft Key;<br>4 x Flat Pads;<br>4 x Spring Washers;<br>1 x Manual |

# PRODUCT SIZE

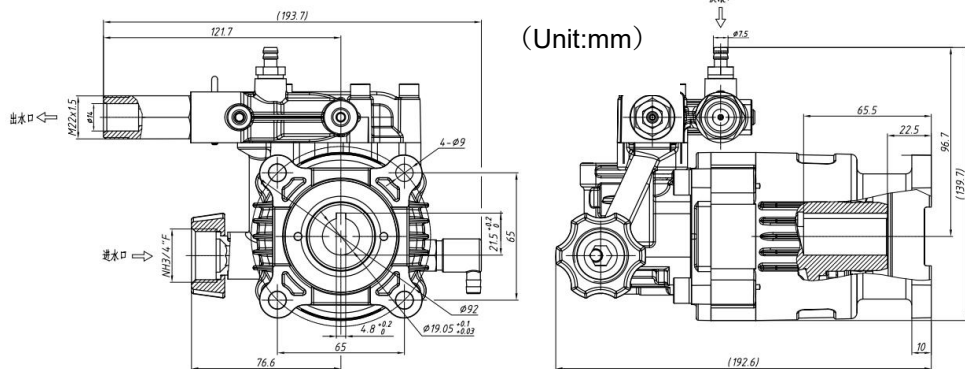
## KXD1810G

(Unit:mm)



## KXA1810G

(Unit:mm)



## Technical Data

The technical and performance data are stated on the cover.

The pump's intake circuit must include a filter having a capacity at least twice the pump's delivery rate, which must not cause restrictions or head losses. The recommended degree of filtration is 50-80 mesh. Maximum intake vacuum-0.25 bar, measured at the pump intake.

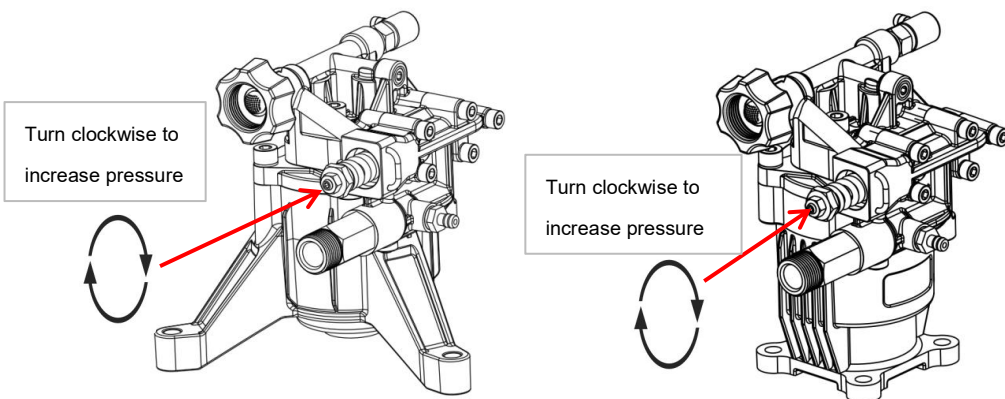
## Overall dimensions

The illustrations showing the overall dimensions are provided in the annexes.

## Environmental operating limits

The pump operates correctly at an ambient temperature between 10 and 40°C, with a relative humidity of 80%.

**Note:** To match engines with different power, the factory set pressure will be less than the rated maximum pressure. Just adjust the pressure limiting valve if you need to increase the pressure.



### Note:

1. Turn clockwise to increase pressure.
2. Adjustment tools: 2.5 mm Allen wrench and 17 mm open-end wrench.

## OPERATION NOTICE

### 1. Prepare

Before use, connect the matching outlet pipe, inlet pipe, water absorption filter, etc., and check whether the fasteners and pipe joints are loose. Connect the inlet and outlet pipes of the pump, and install a filter device of no less than 40 mesh/inch at the inlet end to avoid debris entering the pump and affecting the normal operation of the pump.

### 2. Adjust the pressure

The pump has been adjusted to the rated pressure, and you do not need to adjust it again. If you need to adjust the low pressure, you should first turn on the pressure washer gun and then use the special pressure regulating tool to adjust the pressure regulating screw while spraying so that the pressure reaches the predetermined value, and you can start to work.



**Danger-Warning**

**Do not aim the spray gun at people, animals, and equipment!**

### 3. Precautions for use

When working, it should be noted that the pressure of the pump should not exceed the maximum pressure; otherwise, the pump pressure should be lowered to avoid damage to the pump overload. The pump adopts an internal backwater structure. When the water is shut down, the operation time should not exceed 90S. If it exceeds 2 min, it is recommended to shut down the equipment! It is normal to have drop oil or drop water during operation but the leakage does not exceed 1 ml/min (or 10 drops/min).

### 4. Applicable occasion

This pump is suitable for high-pressure cleaning and all kinds of commercial or civil needs high-pressure occasions.

## 5. Medium and temperature

The conveying medium of the KX series pump is clear water, and the highest water inlet temperature shall not exceed 40°C. Too high inlet water temperature will cause damage to the pump and affect the service life of the pump. For the pump group that runs continuously for a long time, our company suggests using the booster pump for inlet water. The rated flow of the booster pump is at least twice the rated flow of the pump, and the output of the booster pump should be about 2-3 bar. If the user delivers other media other than clean water or the inlet water temperature is higher than 40°C in actual use, please contact our relevant personnel.

## 6. Maximum flow rate and maximum pressure

The flow and pressure values of the pump indicated in the technical parameter table describe the maximum performance of the pump. The maximum rotational speed and pressure values used shall not exceed their set value.

## 7. Power selection

KX series pump is driven by a gasoline engine. When choosing the power, the power value is higher than the set parameters to ensure the performance of the pump.

## Misuses

**Do not** put the pump into service until the plant or machinery in which it is incorporated has been declared compliant with the relevant national and local legal requirements.

**Do not** use the pump in a potentially explosive atmosphere.

**Do not** use the pump for flammable, toxic, or corrosive liquids or those with unsuitable density. Do not take in liquids at temperatures higher than those specified in the technical data.

**Do not** use the pump for the supply of drinking water.

**Do not** use the pump on products for human consumption.

**Do not** use the pump on pharmaceutical products.

## **Residual risks**

Even if the safety regulations and information provided in the manual are complied with, the residual risk described below is still present during the use of the pump.

- **Thermal hazard:** Depending on the temperature of the liquid pumped, the pump may reach high temperatures when in operation. The designer of the installation must therefore bear this in mind and provide the appropriate measures and warning signs for staff.

## **MAINTENANCE AND MAINTENANCE**

### **1. Idle pumps and water pipes for long periods of time.**

- a. Run the pump with clean water for a few minutes.
- b. After turning off the water source, run the pump for 10 seconds, and empty the water in the pump and pipeline to prevent scale.
- c. Blow-dry the pump with compressed air.
- d. Take appropriate protective measures to avoid environmental impact.
- e. Use the tap water to run for 2 min until the gun is out of water. If there is no water, please stop to check.

\* When choosing the gasoline engine as the power, check the oil quantity of the gasoline engine before each start.

\* When the pump performance is significantly reduced, it shall be maintained immediately.

\* Continuous working time, water temperature, and cleanliness of water all affect the performance of the pump, so users can adjust the

maintenance time according to the actual use situation.

## **2. Inspection and repair**

- a. Often check whether the connection part is loose.
- b. It is normal for the moving seal to drop oil or water during operation, but the dripping amount does not exceed 1 ml/min (or 10 drops/min); otherwise, the oil seal or water seal should be replaced.

## **SAFETY INFORMATION**

### **General safety rules**

Most workplace accidents and injuries are caused by carelessness and failure to comply with common sense and safety rules.

In most cases, accidents can be avoided by predicting their possible causes and proceeding with the necessary care and attention.

A careful operator who follows the rules is the best guarantee against accidents.

Before installing and using the pump, the operators and other staff must read and understand the instructions in the manual provided and the details of the installation design.

Do not tamper with, disarm, or by-pass the safety devices, as this may cause serious threats to health and safety. Do not release pollutants into the environment.

Dispose of waste in accordance with statutory requirements.

Before performing any procedure, adopt appropriate safety measures in accordance with the relevant statutory occupational safety requirements and comply with the safety regulations in the manual.

## INSTALLATION INSTRUCTIONS

### **Safety recommendations for installation**

Take all possible precautions to allow the pump to be installed in a safe, risk-free manner.

All installation phases must be taken into consideration when designing the machinery or plant in which the pump is to be installed.

The design must consider all mounting points, the means of transmission of the energy sources, and the protective and safety devices required by the relevant regulations to prevent the risk of injury.

### **General guidelines on water supply connection**

The pump's water supply connection can be made in one of the ways listed below.

Connection to the mains water supply.

Connection to a tank (gravity-feed).

Connection to an external pump (force-feed).

The following requirements must be met for all types of connection.

- 1) The pump must be supplied by means of a crush-proof hose of suitable diameter for the pump's intake connection (see "Technical Data").
- 2) There must be no restrictions or kinks in the hose.
- 3) A suitable filter must be installed at the pump intake (see "Technical Data").
- 4) All connections between the unions and the intake line must be sealed to prevent the pump from sucking in the air.
- 5) The connections and pipes must be suitable for the operating pressure and the pump delivery rate and must comply with the relevant regulations.
- 6) To ensure operating safety install a relief valve (by-pass valve) suitable for the pump's technical data and with a suitable setting downstream of the pump.

- 7) The relief valve dump line must never be connected to the pump intake line.
- 8) Install a pressure damper downstream of the pump to minimize the water hammer effect in the delivery pipeline.

### **Connection to the mains water supply**

The connection must comply with the recommendations provided.

The mains water system must have a flow rate twice the pump's rated delivery rate and a pressure of 2-3 bar.

## **INSTRUCTIONS FOR USE**

### **Safety recommendations for use**

**Before start-up, the operator must perform the necessary safety checks.**

**In the event of leaks from the pressurized pipes, stop the pump at once and remove the cause of the leak. Do not operate the pump above the limits set by the manufacturer to increase its performance.**

**If the system is to be shut down with ambient temperatures close to 0°C, run the pump without water for 10 seconds with the end of the delivery pipeline open to empty the system and pump of water and prevent ice from forming.**

## **MAINTENANCEINSTRUCTIONS**

### **Safety recommendations for maintenance**

**Before doing any maintenance work, depressurize the water system and isolate the pump from all energy sources.**

**When the jobs are done, before restarting the pump, check that no tools, rags, or other materials have been left close to moving parts or in hazardous zones.**

**Replace any excessively worn components with original parts and use the lubricants recommended by the manufacturer.**

**Dispose of the worn-out components and lubricants in accordance with the relevant statutory requirements.**

**Carry out the routine maintenance procedures specified by the manufacturer to keep the pump safe and performing well.**

## **MAINTENANCEINSTRUCTIONS**

### **Inspecting the pump mounting**

Check that the pump's fixing screws have not become loose.

If necessary, tighten them with the driving torque stated in the installation design.

### **Inspecting the connections and pipes**

#### **- Inspect the connections for leaks.**

Leaks can normally be dealt with by tightening the connections properly.

If leaks from the intake pipeline connections are noticed, the seals must be repaired.

#### **- Inspect the hoses.**

If the pipes show signs of aging, breakage, swelling, rubbing, etc., they must be replaced.

### **Inspecting the Filter**

**- Inspect the filter cartridge.**

If the filter cartridge is fouled or damaged, refer to the filter manufacturer's instructions for details on how to restore the filter cartridge to its original filtering condition.



**Warning**

**When replacing the main and secondary water seal, apply grease on the plunger rod.**

**Please use the original accessories during maintenance!**

## DEBUGGING

| Problem                                            | Cause                                | Remedy                                                     |
|----------------------------------------------------|--------------------------------------|------------------------------------------------------------|
| <b>Pump does not reach the specified pressures</b> | Pump sucking air                     | Restore the tightness of the intake line                   |
|                                                    | Intake flow rate insufficient        | Increase the size of the intake pipelines                  |
|                                                    |                                      | Remove any kinks from the pipes                            |
|                                                    |                                      | Increase the filter capacity or clean the filter cartridge |
|                                                    |                                      | Increase the rpm to the rated speed                        |
|                                                    | Worn intake and delivery valves      | Replace the valves(1)                                      |
|                                                    | By-pass valve seat worn              | Replace the valve                                          |
|                                                    | Worn gaskets                         | Replace the gaskets(1)                                     |
|                                                    | Unsuitable, worn nozzle              | Replace nozzle                                             |
| <b>Irregular variations in pressure</b>            | Worn intake and delivery valves      | Replace the valves(1)                                      |
|                                                    | Valves blocked by dirt               | Clean the valves(1)                                        |
|                                                    | Air being sucked into a system       | Restore the tightness of the intake pipeline connections   |
|                                                    | Worn gaskets                         | Replace the gaskets(1)                                     |
| <b>Vibrations on pipes</b>                         | Valves jammed                        | Replace the valves(1)                                      |
|                                                    | By-pass valve malfunction            | Replace the by-pass valve                                  |
|                                                    | By-pass valve dump line is too small | Increase the size of the by-pass valve dump line           |
|                                                    | Pressure damper flat                 | Restore pressure damper to correct inflation pressure      |
|                                                    | Pump sucking air                     | Restore the tightness of the intake line                   |
| <b>Pressure drop</b>                               | Nozzle worn                          | Replace nozzle                                             |
|                                                    | Worn intake and/or delivery valves   | Replace the valves(1)                                      |
|                                                    | Valves blocked by dirt               | Clean the valves(1)                                        |
|                                                    | By-pass valve seat worn              | Replace the valve                                          |
|                                                    | Worn gaskets                         | Replace the gaskets (1)                                    |

(1) Operations that must be carried out at an authorized service center

## TROUBLE SHOOTING

| Problem                                       | Cause                                                    | Remedy                                                                       |
|-----------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------|
| Pump noisy                                    | Air being sucked into the system                         | Restore the tightness of the intake pipeline connections                     |
|                                               | Intake and/or delivery valve springs broken or collapsed | Replace the valves (1)                                                       |
|                                               | Valves blocked by dirt                                   | Clean the valves (1)                                                         |
|                                               | Worn bearings                                            | Replace the bearings (1)                                                     |
|                                               | Intake liquid temperature too high                       | Reduce liquid temperature                                                    |
| Pump overheating                              | High pump operating pressure                             | Reduce the pressure to the rated values                                      |
|                                               | Drive belts too taut                                     | Restore correct belt tension                                                 |
|                                               | Pulley or drive coupling alignment poor                  | Restore the correct alignment                                                |
| Water in oil                                  | Guide piston gaskets worn                                | Replace the gaskets (1)                                                      |
|                                               | High humidity percentage in air                          | Change the oil twice as often (as stated in the "Routine Maintenance" table) |
|                                               | Worn gaskets                                             | Replace the gaskets (1)                                                      |
| Oil leaks from dump lines underneath the pump | Worn gaskets                                             | Replace the gaskets (1)                                                      |
|                                               | Worn pistons                                             | Replace the pistons (1)                                                      |
| Oil leaks from dump lines underneath the pump | Guide piston gaskets worn                                | Replace the gaskets (1)                                                      |

(1) Operations that must be carried out at an authorized service center

## GENERAL INFORMATION

### **After-Sales service procedures**

To request after-sales service (in the event of a pump malfunction or failure, etc.), contact your nearest service center or the manufacturer.

When requesting after-sales services, always state the pump's data plate data and the type of problem.

\*There are any minor changes to the numbers included in the user manual without prior notice.

**Made In China**



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