

V-TUF

VTPM3 & VTPM4

ELECTRIC INDUSTRIAL

COLD WATER HIGH PRESSURE PUMP MOTOR

415volt



User Operators Manual



English
Operators
Manual

CE

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Important Safety Instructions

This book has important information for the use and safe operation of this machine.

Read and understand all warnings before you start working.

IDENTIFICATION LABEL

Before using this machine, make sure that it is provided with the identification Label. In case the identification Label is missing, do not use the machine and consult your dealer immediately.

The Identification Label with the technical specifications is fixed to the Chassis in visible area

Check that your mains voltage is correct for your machine.

WHEN USING THIS MACHINE, PLEASE FOLLOW THESE BASIC PRECAUTIONS

1. Read and understand all the instructions before using the machine.
2. Always switch on machine with spray gun held open and water supply connected.
3. Know how to stop the machine and release pressure quickly, be familiar with all the controls.
4. The jet must not be directed at persons, animals, live electrical equipment or the appliance itself.
5. Do not direct the jet against yourself or others in order to clean clothes or foot-wear.
6. Disconnect from the electrical power supply before carrying out user maintenance.
7. High pressure cleaners must not be used by children or untrained personnel.
8. High pressure hoses, fittings and couplings are important for the safety of the appliance. Use only hoses, fittings and couplings recommended by V-TUF.
9. Always wear suitable eye, face and body protection.
10. Do not operate the machine when fatigued or under the influence of alcohol or drugs.
11. Keep operating area clear of all persons.
12. Do not overreach or stand on any unstable ground, keep good footing and balance at all times.
13. Follow the maintenance instructions specified in the manual.
14. Read carefully instructions concerning grounding (Earthing) and extension cables.
15. To prevent fire hazard, do not use with or near inflammable substances such as: petrol, solvents or thinners.



This manual should be considered a permanent part of the machine and should remain with it if ownership is transferred.

Save These Instructions in a Safe Place

General Points

Instruction Manual

Please check that the manual is in good condition and that each of the pages are clearly legible. Should the manual be damaged, or missing any pages, please return it immediately to your re-seller who will provide you with a replacement copy. Alternatively, you can download this document as a pdf from the website at v-tuf.com and search for this Rapid-M Industrial Stainless Hot Water Pressure Washer.

Conservation of the Manual

This manual should be retained for the full working life of the machine. In case of loss or damage, please request a copy from V-TUF, quoting type of machine, matriculation number and the year of manufacture.

Trial before shipment

The machine has been tested at the manufacturer's factory by a V-TUF technician to check that all of the components are functioning correctly according to the machine's specifications.

Guarantee Terms

The machine is under guarantee according to agreed contractual terms which constitute an integral part of the order or the rules in force, in all cases, for a maximum period equivalent to twelve (12) months from the date of dispatch from the factory. The guarantee covers exclusively breakages which could be due to defective mechanics or assembly. The guarantee does not cover parts subject to wear and tear. The guarantee is considered forfeit in the following cases:

1. Improper use of the machine, failure to observe the rules of use,
2. Use of non-original parts, those not sold directly by the manufacturer or an authorised re-seller,
3. Modifications made to the machine, or repairs made to the machine by anyone not specifically authorised by the manufacturer or by the re-seller.

Packaging

The packing materials and any parts replaced during maintenance should be collected and sent to a specialist waste disposal firm (wood, plastic, metal etc.) and not left within the reach of children or animals.

Delivery

The transport will be carried out by qualified companies, in respect to regulations in force and legislation relative to weight and length. The merchandise travels under the full responsibility of the transporter and the user; in the event of an accident, or late delivery, the manufacturer accepts no liability.

Checks

Upon receipt of the goods, check the condition that they are in. Should they appear damaged, avoid any type of installation and immediately advise the transporter and the supplier.

To ascertain the condition of the parcel, proceed to unpack the goods and check that the delivery is complete (check the correspondence with the delivery note), ascertain whether the machine has arrived in generally good condition, free of breakages or dents. In the event of missing or damaged items, immediately advise the re-seller and / or the manufacturer after having reported these when signing the transporter's delivery note.

Personal identifying data

An exact description of the model, serial number and installed accessories will aid a quick and efficient response on the part of the manufacturer or help centre. Always provide the type, model of machine and its serial number each time you contact the help centre.

To help you remember, we suggest that you place the relevant machine details in the panel below:

| | |
|---------------|-----------|
| Model: | Serial N° |
| Type of pump | |
| Type of motor | |

See examples of Personal identifying data below:



Prior to use, please carefully read the instructions, paying particular attention to "IMPORTANT RECOMMENDATIONS", "SECURITY NORMS" and "PRECAUTIONS".

It is forbidden to remove or tamper with the protective parts of the machine.

It is forbidden to use inflammable, explosive or toxic substances.

It is obligatory to use appropriate protective equipment.

It is obligatory to keep the machine clean and in good working order, in particular the controls, the connections and the technical data panel.

For your safety, and that of those around you, and for the continued working of the machine, do not use parts other than those prescribed by the constructor.

Before using the high pressure cleaner, always try to ensure that any potential hazardous conditions have been removed or eliminated from the area of usage.

The high pressure cleaner should be used with clean water. Unfiltered water and/or corrosive chemicals will cause damage to the machine.

IMPORTANT RECOMMENDATIONS

The ordinary use of this machine does not require particularly specialised training, as long as the user has sufficient competence and training to carry it out, knowledge of this manual and is aware of general safety procedures.

Follow the instructions with great care for your safety and that of others, to safeguard your machine and protect the environment.

SECURITY NORMS

FOUR SYMBOLS TO REMEMBER



General danger



Ranger of severe damage to the machine



Danger to people



Safeguarding the environment

Your machine is supplied with electronic apparatus, the use of which requires the observation of the following safety criteria.



Before using the product, please inspect the unit to make sure it is safe to use and for any damage or any areas of concern.



When using the machine outdoors, do not use when it is raining



Take great care not to damage the electrical power supply lead, in case if the cable is damaged do not attempt a precarious repair. A new cable costs much less than having to repair the machine due to an eventual power fault, let alone the danger a defective cable could pose for people and animals.



Do not attempt any kind of maintenance whilst the plug is connected to any sort of power supply.



Take care not to spray the machine with the water jet as this could lead to short-circuit



Should you need to use an extension lead with the power supply, make sure that the connection between the extension lead and the power lead is secure and stable and conforms to standard safety norms. The plug and the socket should be waterproof.



Do not use the electric plug to turn the machine on or off. Always use the appropriate switches on the machine.



Keep the machine out of reach of children or unauthorised personnel and ensure that no-one else is able to reach the machine when it is connected to a live electric current.



It is strictly forbidden for the user to operate the machine in any way in bare feet.



Do not use the machine if any of its components are defective.



Do not use the machine if there are people in your way.



Do not direct the water flow near sources of electricity.



Do not place your hands ahead of the lance; high pressure nozzles can be extremely dangerous when used inappropriately.



If the machine should be used in service stations, supply stations or other potentially dangerous locations, please ensure that the appropriate safety procedures are observed.



Do not touch the motor or other internal parts when the machine is on, or immediately after it has been turned off as you may risk burning or scalding.



Should you need to clean the motor, this procedure should be carried out in places where, to safeguard the environment, an adequate oil separator is installed.



A 12 monthly electrical safety test (PAT test), is recommended.



Do not use combustible materials other than those advised by the constructor.



Once you have finished working, and after the machine has stopped, release the residual pressure in the tube and pump by squeezing the pistol lever.



It is strongly forbidden to carry out any operation with the machine if you are not wearing the appropriate safety equipment (protective glasses, gloves, overalls etc) as per established safety norms.



During winter, and in the event of frost, it is advisable to use anti-freeze or to empty out the water from the internal circuits by closing the tap from the water supply and activating the machine until all of the water is expelled.



Should the machine remain inactive for extended periods of time, it is possible that calcium deposits can form in the valves which can then cause problems when trying to re-start the machine. Should this happen, pay particular attention to any strange or unexpected noises emanating from the machine, in which case you should consult your local technical services.

IMPROPER USE

By improper use, we mean using the machine for uses which it was not specifically designed for, such as:

- Washing of objects or vehicles which have come into contact with inflammable or noxious dust, gas or liquids, or substances which can cause dangerous reactions when in contact with water.
- Use of the machine in places where there is a danger of explosions, or a significant risk of fire.
- Use of the machine for the cleaning of animals, of any size.
- Use of the machine by anyone under the age of 16 years.
- Use of the machine in the rain or during thunderstorms.
- Use of the machine for the washing of any equipment supplied by an electric current.
- Use of the machine by anyone unauthorised personnel, or anyone untrained to do so.

ERRONEOUS USE

By erroneous use, we mean the use of our machine without respect for the guidelines contained in the instruction and maintenance manual. Lack of respect for these guidelines can represent a risk of injury to both the operator and those persons nearby as well as a risk of serious damage to the machine itself.

Erroneous use, therefore, can constitute: unsecured connections (including those of accessories supplied as optional extras), not using original spare parts, repairs undertaken by unauthorised or unqualified personnel, use of the machine for purposes it was not designed for (see improper use), lack of proper maintenance and use of the electrical power supply cable or the high pressure tube to drag or haul the machine around.

PRECAUTIONS

Before activating the high pressure cleaner, make certain that the water supply is correct (min. 1 Bar – Max 8 Bar); dry use can provoke serious damage to the machine's waterproofing systems.

To safeguard the security of the operator and of the machine, avoid making modifications to the machine without the written consent of the manufacturer.

If you notice any damage to the machine, refrain from any and all work with the machine, and immediately inform the re-seller or an authorised technician.

During use, avoid covering the machine: if you consider it necessary to protect the machine, do it in such a way as to allow air to circulate freely in order to cool the motor.

In the event of a long pause / break during work / using the machine (more than 15 minutes), turn off the machine and release the residual pressure.

The maintenance of this machine requires the use of a qualified person who, as well as having knowledge of this instruction manual, should be equally familiar with general safety guidelines as well as those measures specific to this machine.

For matters of repair, maintenance and tuning, we always recommend that you refer to a re-seller or authorised technician.

ATTENTION:

Never under-estimate these warnings, use of the machine in an inappropriate manner, can lead to serious damage and injury to the operator and any surrounding personal. Don't take risks!

ATTENTION:

The manufacturer cannot be held responsible for any eventual damage or injury to people, animals or property resulting from improper or unreasonable use, or usage in any way not conforming to the instructions contained in this manual.

TECHNICAL DATA:

Industrial Specification ~ 415 VOLT

| V-TUF Mobile Model: | VTPM3 | VTPM4 |
|---------------------------------|-------------------|----------------|
| Water Flow (Litres per minute): | 15 | 21 |
| Pressure (Bar/Psi): | 150/2175 (max) | 150/2175 (max) |
| Motor Power (1450 RPM): | 5hp / 4Kw | 7.5hp / 5.5Kw |
| Pump model: | XHDM350SS | XHDM450SS |
| Jet size (not supplied): | 05 | 07 |
| Power supply (Voltage): | 415v | 415v |
| Weight: | 35Kg | 45Kg |
| Dimensions: (L x W x H) cm | 630 x 260 x 280mm | |

The V-TUF VTUF VTPM high pressure pump motor kits are tough, well built, well proven, reliable Electric Pressure Washer pumps with the ideal balance of pressure and flow for its voltage in the construction sites, agriculture and industry.

The ideal electric pressure pump motor units for the anyone, who is looking for best value on their investment for property and vehicle cleaning maintenance.

- Further features:
- 5m long 5 core electric cable which can accommodate 4 or 5 pin 415volt plugs
- Motor Starter on -off switch box (IP66 rated) with overload
- Pressure regulator valve with 1m HD bypass hose to reduce heat build-up on bypass.
- Inlet water filter
- Outlet fitting is the MSQ quick release type

IDENTIFICATION DATA

The position of the identification data of the machine

1) Identification of the machine according to EU directives.

MODEL: **VTPM3 or VTPM4**



ATTENTION:

Check that your V-TUF high pressure washer has been provided with these identification details, if they have not been provided, please inform your local dealer immediately.

Machines which have not been provided with these details **MUST NOT BE USED** and should be considered anonymous and potentially dangerous.

It is obligatory that you ensure that the data label is always attached to the machine and clearly legible.

In case of damage, loss or illegibility, you should submit a written request to the manufacturer who will then provide you with a new one.

For the models **VTPM3 & VTPM4** we recommend:

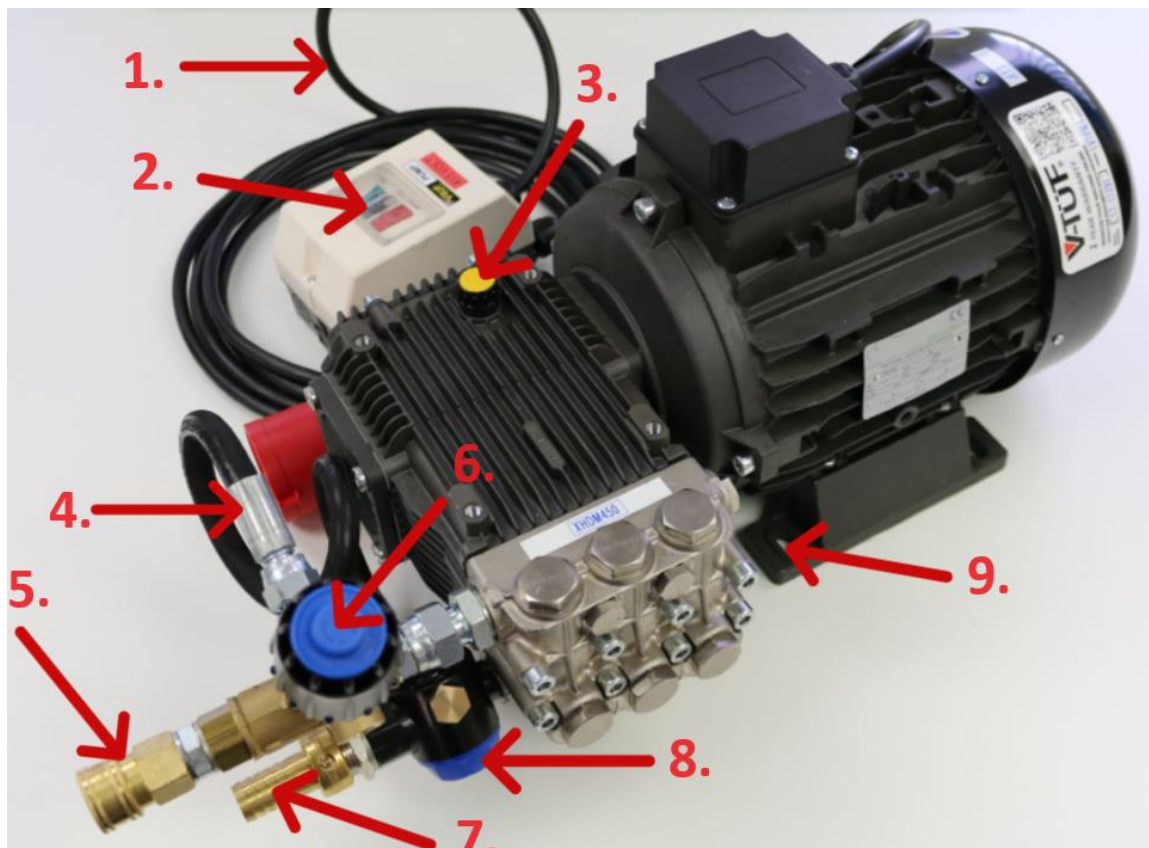
V-TUF Pressure Lube **PL500** – OIL CAPACITY 0.5 litres

You should change the oil after the first 50 hours of use, and after each subsequent 500 hours of operation.



Getting started – (see image below):

1. This is the mains cable, which normally comes with 415volt, 5pin, 32amp plug. You can use 4pin or 5pin 16 amp plugs and if you prefer. Please make sure a qualified electrician attends to this. The unit must be properly earthed too.
2. This is the on-off switch box. The green button is 'on' and the red is 'off'
3. This is the oil level filler plug and dip stick – please make sure the oil level is correct.
4. This is the bypass hose which must be kept airtight at all times.
5. This is the high-pressure outlet port. Please keep will clear when you start the motor pump kit. A high-pressure hose and jet must be fitted to this outlet port.
6. This is the pressure regulator valve hand wheel where you can adjust the pressure and flow.
7. This is the water inlet to the pump. Please make sure that a $\frac{3}{4}$ hose is fitted to this hose tail and that there is sufficient water supply for this unit. The pump unit can work on a suction hose, but this must not be longer than 3meters.
8. This is the suction filter which must be checked and kept clean at all times.
9. Please secure the motor feet to the surface through the mounting holes before use.



TRANSPORT – LIFTING – SHIFTING

ATTENTION:

Whenever the machine needs to be transported, it should be securely fixed with straps, cables or other suitable equipment in order to avoid accidental movement which could cause damage to people or property as well as to the machine itself.

ATTENTION:

Should the machine need to be lifted, it should be hooked or coupled by means of straps, or suitable lifting equipment which will safeguard the machine's integrity. Make certain that the lifting equipment used has superior capacity to the weight and volume of the machine; the use of equipment conforming to current applicable safety standards is recommended.

ATTENTION:

It is strictly forbidden to remain under or in the immediate vicinity of the machine while it is being lifted or elevated.

Do not trust crushed or bent chains or straps, always use thick working gloves.

Chain or strap fixtures should always be welded in place.

Check that the attachment is sufficiently robust to sustain the weight.

ATTENTION:

Should the machine need to be shifted manually from one place to another, you should ensure that the power plug has been detached from the electric current, then using the appropriate grip and taking care not to make any sudden movements which could compromise your safety, or that of the integrity of the machine itself, proceed with the moving.

Remember that you must not drag or haul / move the machine by its electrical power supply cable or by the high pressure hose. Use the handles built on the machine.

N. B.

For all further things which have not been specified, please abide by general norms for the prevention of injuries.

STORAGE

Park the machine on a flat surface. If the machine is not going to be used for an extended period of time, empty the water circuits and then cover the machine and store it in a place protected from atmospheric extremes.

SCRAP AND DISPOSAL

Should you decide to scrap the machine, we recommend that you render it inoperative using the following procedure: remove from the machine the electrical power supply cable and water supply tubes; cut the power supply cable and tubes; remove the lance and pistol, cut all of the electrical cables, break the pump and the motor, destroy the identification data label of the machine and also those of the pump and motor group.

Please remember that the chemical products contained inside the machines tubing should be removed in advance; if necessary any containers used for this purpose should be recycled or disposed of as per current laws in force.

PACKAGING

The packaging materials should be gathered together and sent to a company specialising in the disposal of refuse (wood, plastic, metal etc.) and not left within reach of children or animals.

ATTENTION

Do not use products containing solvents, methanol or hydrocarbons.

Cleaning Applications

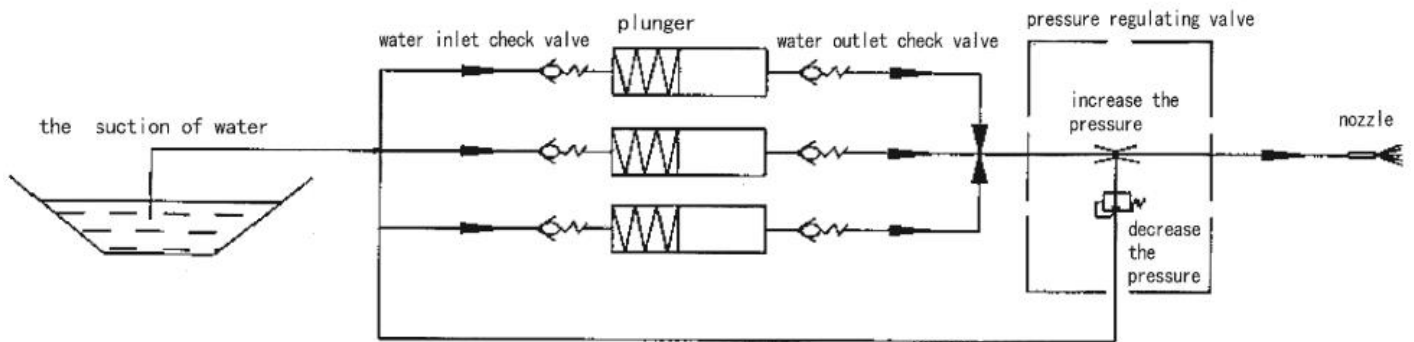
| MARKET SECTOR | APPLICATIONS |
|----------------------------------|--|
| Automotive | Cleaning Services, such as car washes, and vehicle cleaning in yards like courier's fleet of trucks and vans. |
| Public Sector | Cleaning outside of hotels and other public eating areas, including car parks, and entrance steps to buildings. |
| Construction Industry | Cleaning the outside of buildings, concrete & ready-mix centres. Also for cleaning surfaces with hard residue on. |
| Railway Industry | Cleaning trains & trams. Cleaning railway stations. |
| Manufacturing Plants | Cleaning up of oil and dirt, and scale that can be known to build up on equipment, floor surfaces; in workshops and mouldings and castings. |
| Food Industry | Cleaning of food manufacturing plants and equipment on production lines. Built with a stainless-steel cover to comply with regulations in these industries. |
| Fuel & Oil Industry | Cleaning of drilling platforms, cleaning of oil rigs, cleaning of oil trucks, and cleaning of production equipment in oil production facilities. |
| Airplanes/Ships/Vehicles | Cleaning up of vehicles for public use, and also airstrips and runways and highways that vehicles use. |
| Logistics / Storage | Cleaning of vehicles, warehouses and transport related industry. |
| Metallurgy Industry | Cleaning of dirt on equipment that would be used for making products with iron and steel. Can also be used with sand blasting kits to clean hard surfaces such as paints and rusty dirt on steel castings. |
| Mining Industry | Cleaning of mine vehicles, transportation belts & underground working lines. |
| National Defence Industry | Cleaning of residue and dirt on and in ammunition depots and vehicles. |

Troubleshooting

| PROBLEMS | CAUSES | SOLUTIONS |
|--|--|---|
| <p>The pump turns but does not reach the required pressure</p> | <p>The pump is sucking in air if you are running on suction</p> <p>Your water supply may not be adequate for the pump demand</p> <p>Worn out valves</p> <p>Worn out unloader valve</p> <p>Worn out or inadequate high-pressure nozzle</p> <p>Worn out pump seals</p> <p>Inlet water filter may be partially blocked</p> | <p>Check that the suction line is airtight</p> <p>Use a 'water reserve' supply kit or suck water from a tank.</p> <p>Replace the valves</p> <p>Replace the unloader valve</p> <p>Replace the high-pressure nozzle</p> <p>Replace the worn or damaged pump parts</p> <p>Clean the water filter more regularly</p> |
| <p>Irregular fluctuations in pressure</p> | <p>Pump valves may be damaged/won out</p> <p>Presence of foreign bodies in the valves which can affect their performance</p> <p>Air being sucked in.</p> <p>The water feed hose may be kinked, or the internal bore is too small or restricted</p> | <p>Check & replace the valves</p> <p>Check valves and clean</p> <p>Ensure your suction & bypass lines are airtight. You can try to pressure feed the machine to see where there are leaks.</p> <p>Use a 'water reserve' supply kit or suck water from a tank.</p> |

| | | |
|--|---|--|
| <p>Oil is a milky colour (Presence of water in the pump oil)</p> | <p>Pump piston seals may be worn</p> | <p>Replace the oil and if it goes milky quickly again, replace pump seals and oil</p> |
| <p>Excessive noise</p> | <p>High percentage of humidity on the air.</p> <p>Air is being sucked in.</p> <p>Dirty water filter</p> <p>Insufficient water supply.</p> <p>The springs on the suction and/or delivery valves are worn out or broken.</p> <p>Foreign bodies in the suction and/or delivery valves.</p> <p>Worn out pump bearings.</p> <p>The temperature of the water being pumped is excessive.</p> | <p>Change the oil twice as often as is normally prescribed.</p> <p>Ensure your suction & bypass lines are airtight</p> <p>Clean the water filter.</p> <p>Check that the machine has a water supply superior to the flow rate of the pump.</p> <p>Replace the valves.</p> <p>Check and clean the pump valves.</p> <p>Time to replace the pump</p> <p>Lower the temperature of the water being pumped.</p> |
| <p>Water discharge from between the pump body and the pump head.</p> | <p>Worn out pump piston seals or cracked pistons</p> | <p>Inspect and replace seals and the pistons if needed</p> |

WATER FLOW DIAGRAM



Notes:



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