



# OPERATING INSTRUCTIONS

## FLEXTOOL PORTAVIBE® BACKPACK FVE-BP



Version 2.0 (May 2022)

FOR MORE INFORMATION  
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## INTRODUCTION

### General Safety Instructions for the Operation of Power Equipment

The goal of Flextool is to produce power equipment that helps the operator work safely and efficiently. The most important safety device for this or any tool is the operator. Care and good judgement are the best protection against injury. All possible hazards cannot be covered in this manual, but we have tried to highlight some of the important items. Operators should look for and obey Caution, Warning and Danger labels placed on the equipment. Operators should read and follow safety instructions packed with each product to learn how each machine works. Even if you have previously used similar equipment carefully check out each machine before you use it, get the "feel" for it and know its capabilities, limitations, potential hazards, how it operates, and how it stops.

## APPLICATIONS

**Civil:** roadways, kerbing, runways, pre-cast beams, bridge decks, piers and columns.

**Commercial building:** strip and raft foundations, stairs, walls, wall panels and columns, floors, suspended slabs, tilt panels and retaining walls.

**Residential building:** floor stumps, wall cavities, house slabs, wall footings, septic tanks, paving slabs. And driveways

## FUNCTION AND CONTROLS

### BACKPACK

This PortaVibe Backpack drive unit is designed to power flexshaft driven eccentric concrete vibrators. The motor is controlled by an ON/OFF push button which is mounted on the hinged operator control handle. The motor speed is controlled by throttle lever also mounted on the hinged operator control handle

## VIBRATOR & FLEXSHAFT

This vibrator is designed for the compaction of concrete by immersion of the vibrator head into the concrete. Compaction improves the strength and finish of concrete by driving out entrapped air. High frequency vibration allows the efficient compaction of low slump concrete mixes. The vibrator head is driven by a rotating flexible drive shaft that transmits the drive from the PortaVibe Backpack drive unit. The vibrator head uses an eccentric mass to produce vibration. Bearings support the rotor at each end.

## HAZARDS AND RISKS

- NEVER allow any person to operate equipment without adequate instruction.
- ENSURE all operators read, understand and follow the operating instructions.
- SERIOUS INJURY may result from improper or careless use of this machine

## MECHANICAL HAZARDS

- DO NOT operate the machine unless all protective guards are in place.
- ENSURE that the motor operation switch is in the OFF position and the spark plug ignition lead is disconnected before removing the guards or making adjustments.
- KEEP hands and feet clear of rotating and moving parts as they will cause injury if contacted.
- BE CAREFUL not to come in contact with the muffler during or immediately after operation as it will be extremely hot and can cause severe burns.
- DO NOT leave the equipment in operation while it is unattended.
- EXERCISE CARE when handling concrete vibrators. Exposure to vibration or repetitive work actions may be harmful to hands and arms.
- DO NOT hold the vibrator head in your hands while it is running. Hold the vibrator by the flexible shaft to isolate your hands from the vibration.
- NEVER stand on the vibrating head while it is operating.
- ENSURE that repairs to machinery are carried out by COMPETENT personnel.
- ENSURE that petrol is only stored in an approved storage container.

## FIRE & EXPLOSION HAZARDS

- PETROL is extremely flammable and explosive under certain conditions.
- ENSURE that petrol is only stored in an approved storage container.
- DO NOT refuel the motor while it is in operation or hot.
- DO NOT refuel the motor in the vicinity of sparks, a naked flame or a person smoking.
- DO NOT over fill the fuel tank and avoid spilling petrol when refuelling. Spilled petrol or petrol vapour may ignite. If spillage occurs, ensure that the area is dry before starting the motor.
- Motor vibrations can cause an improperly tightened fuel cap to loosen or come off and can result in fuel spills. In order to reduce risk of fuel spillage and fire, ensure fuel tank caps are sufficiently tightened
- NEVER attempt to refuel a petrol engine until it has been stopped & completely removed from the operator.

## CHEMICAL HAZARDS

- DO NOT operate or refuel a petrol motor in a confined area without adequate ventilation.
- CARBON MONOXIDE exhaust gases from petrol engines can cause death in confined spaces.

## NOISE HAZARDS

- EXCESSIVE NOISE can lead to temporary or permanent loss of hearing.
- WEAR an approved hearing protection device to limit noise exposure as required by Occupational Health and Safety regulations. Noise levels in excess of 85dB(A) may be produced by engines and concrete vibrators.

## PROTECTIVE CLOTHING

- ALWAYS wear protective clothing and footwear to prevent the skin coming into contact with wet concrete.
- PROTECTIVE FOOTWARE should be worn to reduce injuries from penetration through the sole, contact with cutting objects, slipping and contact with wet concrete.
- EYE PROTECTION must also be worn to prevent eye injuries.
- USE GLOVES when handling and inspecting the flexible shaft outer casing. Excessive wear of the rubber cover can expose the wire braided reinforcement, allowing it to project and cause injury.

## ADDITIONAL HAZARDS

- To reduce the risk of injury from loss of balance and muscle strain do not start the engine whilst it is on the operators back. To start the engine place the unit on an elevated flat level surface, and only place on the operators back once the engine is idling.
- Exercise care when using the backpack unit. Ensure shoulder and waist straps are adjusted to suit the operator, ensure the weight of the unit is evenly distributed across both shoulders and hips to reduce back injuries. An incorrectly fitted and unbalanced PortaVibe Backpack may cause you to become unbalanced, particularly on uneven surfaces or elevated positions. Slip/Trip/Fall can be a major cause of serious injury.

## OPERATION

- Do not engage the flexshaft drive coupling into an engine that is already running. Flexshafts must only be connected to the drive engine prior to it being started.
- Set your backpack unit on the ground and attach the flexshaft using the quick connect adaptor that is on the unit.
- Start the engine - For information on correct engine starting procedures refer to the engine manufacturers operation manual.
- Once the backpack has been started place it on the operators back and adjust the straps to suit the operator.
- Do not use an immersion vibrator head as an external vibrator by applying it to the outside of formwork.
- Do not operate the vibrating head out of concrete for extended periods.
- Do not leave it running while you wait for fresh supplies of concrete to be placed. Vibrator heads are designed to be cooled by the concrete in which they are immersed.
- During periods when the vibrator head is not immersed in the concrete drop the engine speed back to idle

## CARE AND PREVENTATIVE MAINTENANCE

- Keep the PortaVibe Backpack drive unit clean and free of concrete residue and build up.
- Concrete vibrators must be handled with care and be properly maintained in order to avoid unnecessary breakdowns. Check regularly for signs of wear and rectify any faults immediately.
- The exterior of the flexshaft and the vibrator head are subject to abrasion and wear. If the vibrator is operated unchecked, concrete will eventually enter the vibrator head or the flexshaft. Naturally, the cost of repairing a vibrator which has been allowed to deteriorate in this way will be greater.
- Regular inspection of the vibrator and the flexible shaft will avoid these problems.
- Check the flexible shaft for kinks and external damage by laying it out straight on a workbench or the floor. Although it still operates a badly kinked flexible shaft may result in a broken inner core.

## CLEANING AND STORAGE

It is advisable to wash the vibrator head and flexshaft with clean water after each use and before storing. This will ensure that concrete does not accumulate on the exterior of the unit that can cause overheating and premature failure of the unit.



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This manual summarises our best knowledge of the product based on the information available at the time of publication. You should read this manual carefully and consider the information in the context of how the product will be used. Our responsibility for products sold is subject to our standard terms and conditions of sale.

### **DISCLAIMER:**

Any advice, recommendation, information, assistance or service provided by us in this manual is given in good faith and is believed by us to be appropriate and reliable. However, any advice, recommendation, information, assistance or service provided by us is provided without liability or responsibility PROVIDED THAT the foregoing shall not exclude, limit, restrict or modify the right entitlements and remedies conferred upon any person or the liabilities imposed upon us by any condition or warranty implied by Commonwealth, State or Territory Act or ordinance void or prohibiting such exclusion limitation or modification. The product can be expected to perform as indicated in this manual so long as operation and operational procedures of the individual products are followed as recommended in this manual.

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