

evOLUTION®

VSM480

**VARIABLE
SPEED
MIXER**



Instruction Manual



Read instructions before operating this tool.

evOLUTIONPROJECT®

Important

Please read these operating and safety instructions carefully and completely. For your own safety, before using this equipment check that the voltage is correct and that all handles and parts are firmly secured. If you are uncertain about any aspect of using this equipment, please contact our Technical Helpline.

Technical Helpline UK: 0870 609 2297

Technical Helpline USA: 1-866-EVO-TOOL

VSM480 Electric Mixer

Congratulations on your purchase of an Evolution Power Tools VSM480 Electric Mixer. Please complete and mail your product guarantee card or this can be completed online. Doing so will validate your machine's warranty period and ensure prompt service if needed. We sincerely thank you for selecting a product from Evolution Power Tools.

CAUTION: IMPORTANT SAFETY INSTRUCTIONS

GENERAL SAFETY RULES

WARNING: For Your Own Safety. Read Instruction Manual Before Operating the equipment.

- NEVER leave the motor running whilst moving the 'MIXER', even if it is only a short distance.
- Having carried out the checks listed in the 'pre start' section, you may start the motor.
- Cordon off the work area and keep members of the public and unauthorized personnel at a safe distance.
- Personal Protective Equipment (PPE) must be worn by the operator whenever this equipment is being used (see Health & Safety).
- Make sure you know how to safely switch this machine OFF before you switch it ON in case you get into difficulty.
- Never leave the motor running and unattended.
- Do not operate the MACHINE when you are ill, feeling tired, or when under the influence of alcohol or drugs.

CAUTION

Improper maintenance can be hazardous. Repairs and servicing should only be conducted by an Evolution Power Tools' approved engineer. Improper repairs and / or maintenance will invalidate your warranty.

Health & Safety

Operating Instructions

Before you operate or carry out any maintenance on this machine YOU MUST READ and STUDY this manual.

Vibration

The Evolution 'MIXER' has been specifically designed to reduce hand/arm vibration levels. Refer to Technical Data section for vibration levels and usage times. DO NOT exceed the maximum usage times.

PPE (Personal Protective Equipment)

Suitable PPE must be worn when using this equipment i.e. Safety Goggles, Gloves, Ear Defenders, Dust Mask and Steel Toe capped footwear (with anti-slip soles for added protection). Wear clothing suitable for the work you are doing. Always protect skin from contact with concrete.

Dust

The mixing process can produce dust, which may be hazardous to your health. Always wear a mask that is suited to the type of dust being produced.



We, **Evolution Power Tools Limited**
Venture One
Longacre Close
Sheffield
S20 3FR

as the supplier of the product listed below:-

VSM480 Variable Speed Mixer

Part Number: VSM4802/VSM4802EU
Voltage: 230v
Power: 1100W

Declare, under our sole responsibility that the equipment to which this document relates, is in conformity with the following standards or other normative documents:-

- EN60335-1: 1994+A1+A2+A11-A16
- EN55014-1: 2000+A1+A2
- EN55014-2: 1997+A1
- EN61000-3-2: 2000
- EN61000-3-3: 1995+A1
- EN61000-3-11: 2000
- EN60745-1/A1:2003
- EN60745-2-5:2003

and thereby conforms to the protection requirements of Council Directive **73/23/EEC** amended by **93/68/EEC** relating to the Low Voltage Directive, Council Directive **98/37/EEC** relating to the Machine Directive and Council Directive **89/336/EEC** relating to the EMC Directive, and is compliant with Council Directive **2002/95/EC** in relation to the Restriction of Hazardous Substances in electrical & electronic equipment (RoHS). EU Directive **2002/95/EC** restricts the use of the 6 substances below in the manufacture of specific types of electrical equipment. Whilst this restriction does not legally apply to components, it is recognized that component 'compliance' is relevant to many customers.

Evolution Power Tools' definition of RoHS Compliance:

- The product does not contain any restricted substances in concentrations and applications banned by the directive
- and for components, the product is capable of being worked at the higher temperatures required by lead-free soldering.

The restricted substances and maximum allowed concentrations in homogenous materials are, by weight:

Lead – 0.1%

Mercury – 0.1%

PBB (Polybrominated Biphenyls) – 0.1%

PBDE (Polybrominated Diphenyl Ethers) – 0.1%

Hexavalent Chromium – 0.1%

Cadmium – 0.01%

Level of Sound pressure according to **86/188/EEC, 98/37/EEC & 2000/14/EC:-**

Guaranteed Sound Power Level: 98.0 dB(A)

All Relevant technical documentation is held at Evolution Power Tools Ltd, Sheffield (UK).

Authorised by:

Mr Matthew J Gavins
Managing Director



SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

ADDITIONAL SAFETY INSTRUCTION

For your own personal protection and for the safety of those around you, please read and ensure you fully understand the following safety information. It is the responsibility of the operator to ensure that he/she fully understands how to operate this equipment safely. If you are unsure about the safe and correct use of the mixer, consult your supervisor, distributor or Evolution Power Tools.

SPECIFICATIONS

Motor (110 or 230V ~ 50/60Hz)	1100 W
No Load Speed	(Min -1) 180-480rpm
Coupling Thread	M14 - 2.0
Vibration (m/sec ²)	0.5 - 0.7
Usage Time (mins)	30
Sound Power Level (LWA)	< 94 dB(A)
Mix Paddle Max Dia (mm)	120
Weight (Kg)	4.9
Height (Max) - Operation (mm)	863
Depth (Max) (mm)	240
Width (Max) (mm)	330

PRE START CHECKS

Unpacking and Checking Content

Your Mixer is shipped in one box. Remove the tool and all loose parts from the carton. Place all parts on a secure, stationary work surface and inspect the machine carefully.

Loose parts included	Quantity
Mixer Unit	1
Paddle	1
Wrench	2
Operator's Manual	1

NOTE: Before beginning assembly, check that all parts are included.

Pre start-up inspection

The following Pre start up inspection must be performed before the start of each work session or after every four hours of use. If any fault is discovered, the mixer must not be used until the fault is rectified.

1. Thoroughly inspect the Mixer for signs of damage. Make sure that the mixer paddle is secure before using the machine.

BASIC OPERATION

Switch

On/Off Trigger Switch - to start the machine, squeeze the trigger switch. Release the trigger switch to stop the motor. This machine is equipped with a lock-on pin. If continuous operation is required, squeeze the trigger and press the pin. To stop, squeeze and release the trigger switch.

Speed Adjustment

By turning the thumb operated adjustor wheel, the speed may be adjusted electronically for best mixing performance in a given medium.

How to use the Tool

Effective control of this machine requires two-handed operation for maximum protection and resistance to the start-up and operating torque. Place the work properly and hold the machine firmly **WITH BOTH HANDS** to prevent loss of control which could cause personal injury. Protect your eyes from injury with safety glasses or goggles.

WARNING: Keep the cord behind the operator and away from mixing area to prevent it from becoming entangled in the paddle.

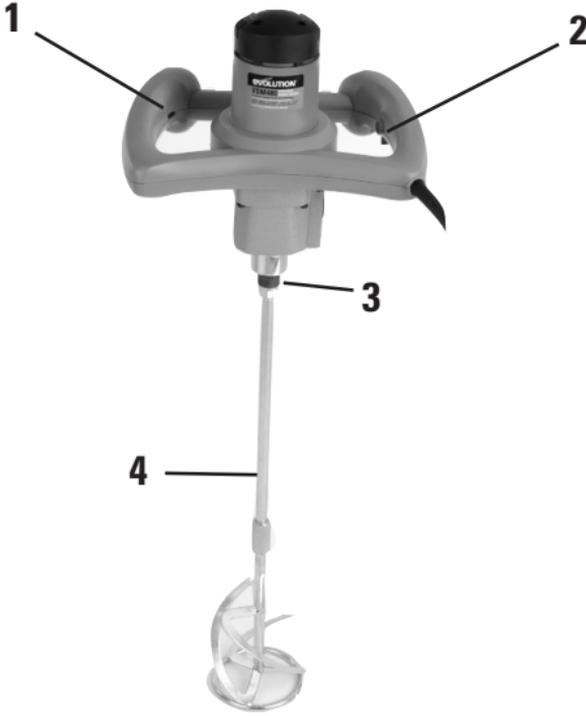
Handles

The handles of the Electric Mixer are designed for an optimum grip.

Handles Placing Position

Please pay attention when placing the Electric Mixer on the ground. Please do not let the Mixer rest on the power cable where it enters the handle. **NOTE:** Incorrect placing of the Electric Mixer Machines will cause the electrical cord to damage, increasing electrical shock risk and damage to the Machine.

MACHINE DETAILS



1. Speed Control Wheel
2. Start Switch

3. Spindle
4. Mixing Paddle

ENVIRONMENT

Safe Disposal Instructions for the protection of the environment.

The machine contains recyclable materials. Take the discarded apparatus and accessories to the relevant recycling facilities.

Component	Material
Operator handle	Plastic
Motor housing	Plastic
Gearbox housing	Aluminium
Paddle	Steel
Various parts	Steel, Copper & Plastic

TROUBLESHOOTING

Most motor troubles may be traced to loose or incorrect connections, overload, or to over long supply circuit wire. Always check the connections, the load and the supply circuit whenever motor doesn't work well. Check wire sizes and length with the **Cord Size Chart**.

Wire Sizes

NOTE: Make sure the proper extension cord is used and is in good condition. Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug. The use of any extension cord will cause some loss of power. To keep this to a minimum and to prevent overheating and motor burnout, use the table below to determine the minimum wire size extension cord.

Total Extension Metres	Cord Length Feet	Cord Size MM2
25	75	1.0
50	150	2.5

MAINTENANCE

It is recommended that an approved Evolution dealer carries out all maintenance and repairs. Always use genuine Evolution replacement parts.

WARNING: To reduce the risk of injury from unexpected starting or electrical shock, unplug the power cord before working on the machine. Keep the tool clean. Remove accumulated dust from working parts. Make sure that the tool operates properly. Periodically check screws and bolts for tightness.

Keeping Tool Clean

IMPORTANT: To avoid motor damage, the motor should be blown out or vacuumed frequently to keep dust from interfering with normal motor ventilation.

Periodically blow out all air passages with dry compressed air every 100 hours of use. All plastic parts should be cleaned with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material. Wear safety glasses while using compressed air. Every 200 hours, have the lubricant in the gearbox replaced by a qualified service center.

12 MONTHS WARRANTY

12 MONTH LIMITED WARRANTY. EVOLUTION POWER TOOLS RESERVES THE RIGHT TO MAKE IMPROVEMENTS AND MODIFICATIONS TO DESIGN WITHOUT PRIOR NOTICE.

Evolution Power Tools will, within twelve (12) months from the original date of purchase, repair or replace any goods found to be defective in materials or workmanship, provided the product Guarantee information has been returned to Evolution Power Tools. This warranty is void if the product being returned has been used beyond the recommendations in the Instruction Manual or if it has been damaged by accident, neglect, or improper service. This warranty does not apply to machines and / or components which have been altered, changed, or modified in any way, or subjected to use beyond recommended capacities and specifications. Electrical components are subject to respective manufacturers' warranties. All goods returned defective shall be returned prepaid freight to Evolution Power Tools. Evolution Power Tools reserves the right to optionally repair or replace it with the same or equivalent item. In no event shall Evolution Power Tools be liable for loss or damage resulting directly or indirectly from the use or merchandise or from any other cause. Evolution Power Tools is not liable for any costs incurred on such goods or consequential damages. No officer, employee or agent of Evolution Power Tools is authorised to make oral representations of fitness or to waive any of the foregoing terms of sale and none shall be binding on Evolution Power Tools.

Questions relating to this limited warranty should be directed to the company's head office, or call the appropriate Helpline number.

The logo for Evolution Power Tools, featuring the word "evolution" in a bold, lowercase, sans-serif font. A stylized grey swoosh or brushstroke is positioned above the letter 'o' and extends to the right, ending above the 'n'. A registered trademark symbol (®) is located at the top right of the word.

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