

**AG175**  
**Los Angeles Abrasion Machine**

Impact Test Equipment Ltd  
[www.impact-test.co.uk](http://www.impact-test.co.uk) & [www.impact-test.com](http://www.impact-test.com)

User Guide  
**User Guide**  
**User Guide**

**Impact Test Equipment Ltd.  
Building 21 Stevenston Ind. Est.  
Stevenston  
Ayrshire  
KA20 3LR**

T: 01294 602626

F: 01294 461168

E: [sales@impact-test.co.uk](mailto:sales@impact-test.co.uk)

Test Equipment Web Site  
[www.impact-test.co.uk](http://www.impact-test.co.uk)

Test Sieves & Accessories Web Site  
[www.impact-test.com](http://www.impact-test.com)

# CONTENTS

	page
Introduction	2
Installation	3
Operation	4
Maintenance	5
Spares & Accessories	5
Safety Instructions	6

# INTRODUCTION

The machine consists of a closed hollow cylindrical steel drum rotating around its horizontal axis on ball bearing units mounted on a sturdy base framework.

The drum is driven via an enclosed belt drive arrangement from an electric motor/gearbox unit situated on the right frame.

Inside the drum is attached a full-length steel shelf, access to the inside of the drum being through a full length opening covered by a dust-proof cover plate. Nuts and washers retain the plate.

Controls are provided on the right-hand side of the machine at convenient operator height. These consist of start and stop push buttons, and a counter to preset the number of revolutions before automatic stop.

A tray for removal of the sample on completion of testing is located on the frame under the drum.



- **European and ASTM methods**
- **Revolution counter**
- **Safety cut - out**
- **Full width cover**
- **High safety**
- **Easy to use**
- **Stable operation**

Dimensions ( l x w x h )	980 x 920 x 980 mm
Electrical supply	220 – 240 V AC 50 Hz. 1 ph
Weight	400 kg

## Accessories & Spares

Set of Abrasive Charges	ASTM
Set of Abrasive Charges	EN
Steel Charge	1 7/8 inch nominal diameter, approx weight 440g
Stell Charge	1 13/16 inch nominal diameter, approx weight 400g

# INSTALLATION

Whilst the test is in operation do not remove any covers or attempt to adjust any part of the machine. Ensure all moving parts are thoroughly secured before attempting any maintenance.

Ensure all appropriate measures are taken to protect the operator from excessive noise.

See noise certificate (when supplied).

**Warning:** Before removing any covers or performing maintenance repair and service, isolate from electrical supply by removing mains plug. Where mains supply is required during these activities, only competent persons should perform the work. Check that the power supply is compatible with the requirements stated on the label and connect in accordance with IEE regulations or to local requirements. Local isolation of machine required.

**Important:** this equipment must be correctly earthed.

## **Portable Appliance Tests (PAT)**

All products are tested for electrical safety prior to sale.

Organisations have an obligation to ensure equipment is maintained and is safe for use.

**Important: do not connect leads to sensitive components such as PCBs, control switches and the like.**

## **DO NOT FLASH TEST ELECTRONIC EQUIPMENT.**

**If in doubt as to the most suitable connection point (which will usually be an earth stud or an external earth connection) contact Impact Test Equipment Service Department for assistance.**

The machine must be sited on a flat, solid floor, or concrete base. It should be firmly secured in position to the floor, preferably with three M12 (or ½ inch) rag bolts of 150 mm (6 inch) length grouted into the floor, and passing through the angle brackets provided on the base of the machine.

# OPERATION

Prepare sample as described in the relevant Standard.

Before operating, check that the cover plate fits snugly into the loading aperture in the drum and that the retaining nuts are fully tight permitting no movement of the cover.

Check that the tray sits squarely within its locations on the base framework.



## COUNTER

The preset value is set by pressing the Up or Down buttons under the L.E.D display.

The reset button has 2 functions.

- 1) It will start the drum rotating when a value is set on the digital display.
- 2) While the test is running and the reset button is pressed the digital counter will reset to Zero.

Each of the eight digit-increment keys is associated with the digit immediately above it in the four-digit subsidiary display.

## DIGIT INCREMENT KEYS

This push-key allows the user to set the value of the digit immediately above. When the top push-key is operated repetitively the digit being set will step downwards in value from 0 – 9. The lower key will step upwards in value from 9 – 0.

**Note 1:** The counter is protected by a 50 mA type 'T' fuse.

The machine will automatically stop after the preset number of revolutions. If it is required to stop before this, the large red stop button may be pressed at any intermediate stage.

To change the contents of the drum, undo the nuts and remove the cover plate. When refitting ensure that the gasket is in place.

Unload by removing the cover plate and revolving the drum by hand, allowing the drum contents to fall into the tray. The tray should be drawn forward slightly on its runner to prevent spillage.

When loading and unloading or when not in use, switch off electrical current at mains connection.

# MAINTENANCE

Periodically check the tension of the belt drive. This is correct when there is no belt slip on initial machine start up.

To tension the belts, slacken the bolts securing the motor gear unit to the frame, pull the unit back until the belt tension is correct ensuring that the unit is kept square to the frame. Retighten the securing bolts.

**Note:** do not over tension the belts.

Occasionally grease the drum main bearings via the nipples provided. The geared motor unit gearbox is filled with the correct quantity and grade of oil during manufacture and should not require further attention.

# SPARES & ACCESSORIES

Refer to Impact Test Equipment for details.

## ACCESSORIES

1. Set of Abrasive Charges – ASTM
2. Set of Abrasive Charges – EN

## SPARES

1. Steel Charge  
1 7/8 inch nominal diameter, approx weight 440 g.
2. Steel Charge  
1 13/16 inch nominal diameter, approx weight 400 g.

# SAFETY INSTRUCTIONS

Whether you are the owner, employer, operator, or maintenance person for this machine, **SAFETY** is your responsibility. You are responsible for operating and maintaining this equipment in compliance with these instructions and for using common sense.

You should **ALWAYS** review and completely understand these operating and safety instructions before using this machine.

**DANGER:** This machine operates on electric current and could result in electric shock, electrocution, or an explosion if not properly operated.

**I. ALWAYS** make sure the motor and electrical components are appropriate and properly configured for your intended use. The standard Los Angeles Abrasion Machine comes with a non-explosion-proof motor wired for 220 – 240V AC 50Hz 1 ph

**II. ALWAYS** check electrical wiring for loose connections and for pinched or frayed wiring.

**III. ALWAYS** use a properly wired, three-pronged plug, or (otherwise) ground the unit.

Connect the machine to a properly wired, three-pronged receptacle. Make sure the cord is located where no one will get tangled in or trip over it.

**IV. ALWAYS** disconnect the power supply before performing maintenance or repairs on the machine.

## WARNINGS

1. Never operate the Los Angeles Abrasion Machine unless it is sitting upright on a solid, substantial surface with all covers and case in place. Never operate the unit with its internal parts exposed to the operator.
2. Keep all parts of your body away from moving parts of the machine when it is operating.
3. Unplug or disconnect the unit from power source when not in use.
4. The electric motor of the Los Angeles has internal thermal protection. Therefore, the motor will automatically shut off if overloaded. The unit will restart by itself after cooling, unless it is disconnected from power during cool down.
5. Set the Los Angeles on as level a surface as possible for proper operation.
6. **DO NOT operate the Los Angeles Abrasion Machine without first making sure that all nuts and locks are secure.**
8. **DO NOT operate the unit when excessive vibration and machine movement occurs.**