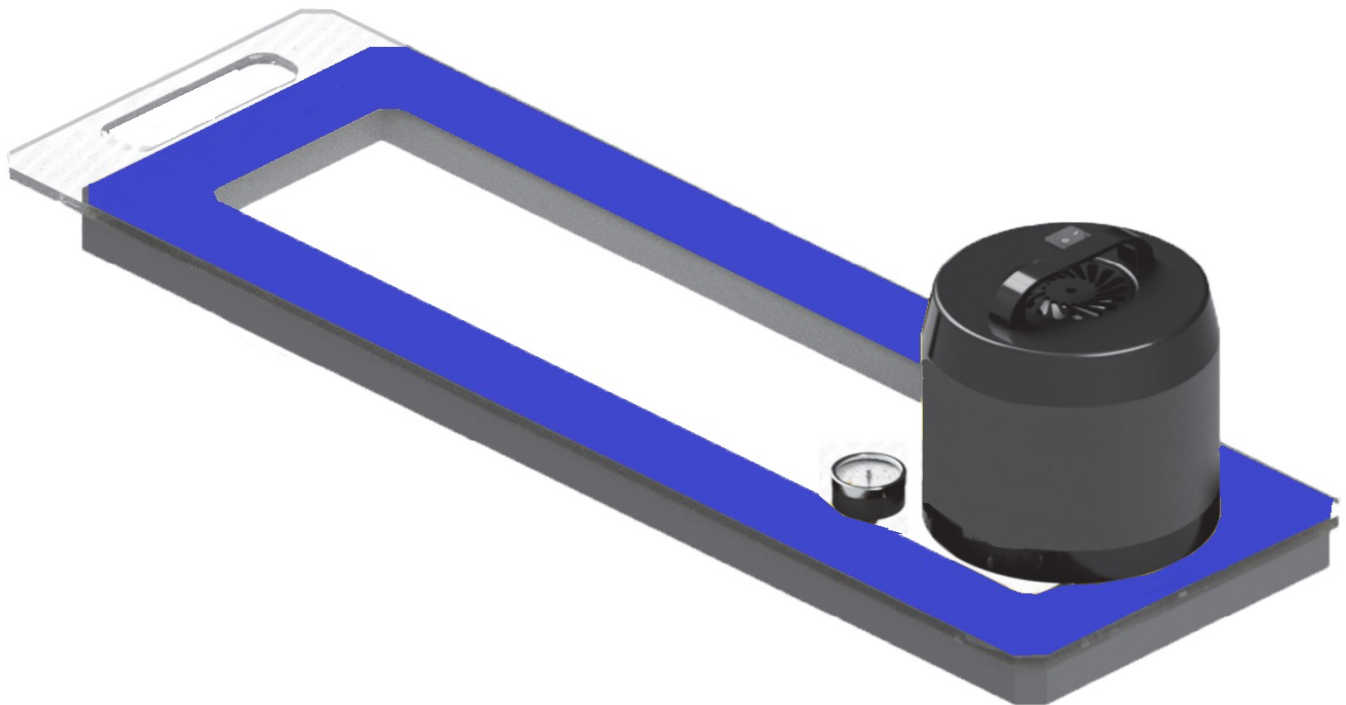


Barnes

Plastic Welding Equipment Ltd.

Vac-Plate Self Contained Vacuum Box

Operating Manual



1	SAFETY PRECAUTIONS.....	PAGE 1
2	GENERAL SAFETY & MAINTENANCE INFORMATION.....	PAGE 2
	2.1 Intended Use.....	Page 2
	2.2 Maintenance.....	Page 2
3	GENERAL PRODUCT DATA.....	PAGE 3
4	SITE PREPARATION.....	PAGE 3
5	TESTING USING THE VAC-PLATE.....	PAGE 4
	5.1 V-Plate Position.....	Page 4
	5.2 Test Results.....	Page 5
6	MAINTENANCE & REPAIR.....	PAGE 5
7	FACTORY SERVICING.....	PAGE 6

1 Safety Precautions

Safety precautions for operating personnel and equipment:

WARNING 1: Operating personnel should perform only the procedures described and recommended in this manual.

WARNING 2: To avoid serious injury ensure the applied surface is free of any debris and/or aggressive substances.

WARNING 3: The locations of potentially dangerous voltages and other hazards are identified and labeled on the equipment. Be careful to observe these warnings when installing, operating, maintaining or servicing the equipment. Observe all warnings in this manual.

WARNING 4: Make sure to disconnect all input power prior to performing any maintenance or repairs.

WARNING 5: This product is intended for operator attended operation only. This product should never be left unattended at any time while the Vacuum is on. Incorrect use of the product will cause damage to the Vacuum and/or the operator.

WARNING 6: Wear proper eye protection, in case of an implosion of the Vacuum Plate.

CAUTION 1: Observe the precautions given on the equipment and within this manual to prevent damage to the equipment.

CAUTION 2: Unauthorized personnel should not remove from the equipment those panels or covers that are provided for protection and/or require a tool to remove.

CAUTION 3: Prior to use ensure there are no cracks or defects on the V-Plate surface, failure to do so may cause damage to the Vacuum and/or injury to the user.

2 General Safety & Maintenance Information

Vac-Plate Self Contained Vacuum Box is a high voltage piece of equipment . Always disconnect the power before performing any service and/or maintenance procedures on the V-Plate . At all times while operating the Vacuum keep hands , fingers , and other body parts well clear of the Vac-Plate intake.

2.1 Intended Use

The Vac-Plate is intended as professional use equipment and is not intended for sale to the general public.

The Vac-Plate has been manufactured utilizing the latest technology and current safety standards and regulations . However , improper use or abuse may lead to hazardous conditions for the user or other personnel or cause damage to the Vac-Plate itself. The Vac-Plate has been designed to incorporate a separate motor , allowing for quick and easy swapping of damaged or worn plates.

Always keep the Vac-Plate Manual at or near the location where the Vac-Plate is being used so that it can be referred to easily.

The technician assigned to operate this Vac-Plate must have read through and become familiar with this manual , particularly all the safety information , before operating the Vac-Plate itself.

No changes and/or modifications shall be made to the Vac-Plate, especially as it relates to safety.

2.2 Maintenance

Maintenance , inspection and adjustment of the Vac-Plate shall only be carried out by qualified personnel . Before removing or installing spare parts or performing other repair operations to the Vac-Plate, contact Barnes Plastic Welding Equipment Limited for advice on proper procedures . This will help ensure a safe and successful outcome . Always make sure all screw connections are tight before attempting to operate the Vac-Plate after maintenance and/or repair procedures . Also make sure all covers, guards, and other safety devices have been fully reinstalled before use.

3 General Product Data

The Vac-Plate Self Contained Vacuum Box is an easy to use non-destructive on-site Vacuum Tester. This design allows for easy high-volume testing of seams throughout the largest of sites. The Vac-Plate Self Contained Vacuum Box is a high power 110v Wet/Dry Vacuum designed to pull up to 2.6 PSI or 5.2 in Hg. A flexible transparent plate alongside a 32mm thick gasket allows for complete suction on non-level surfaces. You can be assured the Vac-Plate has been built using the highest quality materials available which include Billet Aluminum and ground and hardened steel.

4 Site Preparation

Before proceeding with the unpacking and installation instructions in the following section(s) please make sure the work site is prepared and ready to use the Vac-Plate. The Vac-Plate has been designed to handle the roughest on-site conditions, prior to placing the Plate onto the testing area please ensure that there are no stone or debris in the working area. Failure to do so may cause damage to the machine and/or injure the operator.

Carefully follow the detailed unpacking and installation instructions provided in this manual.

5 Testing Using the Vac-Plate

5.1 Vac-Plate Position

- a. Prior to testing lightly spray a mixture of soap and water onto the section of interest.
- b. Place the Vac-Plate flat on the section of interest ensuring that the seam is running horizontally down the center of the Plate.
- c. Turn switch to the 'ON' position.
- d. To gain proper suction, the Vac-Plate needs to be pressed onto the liner using both provided handles (Items 1 & 3, Figure 5.1).
- e. The negative pressure being applied to the seam can be read on the provided Manometer/Pressure Gauge (Item 2, Figure 5.1).
- f. After the specified time has elapsed turn the power switch to the 'OFF' position', allow time for the suction to subside and move the Vac-Plate to the next testing position.

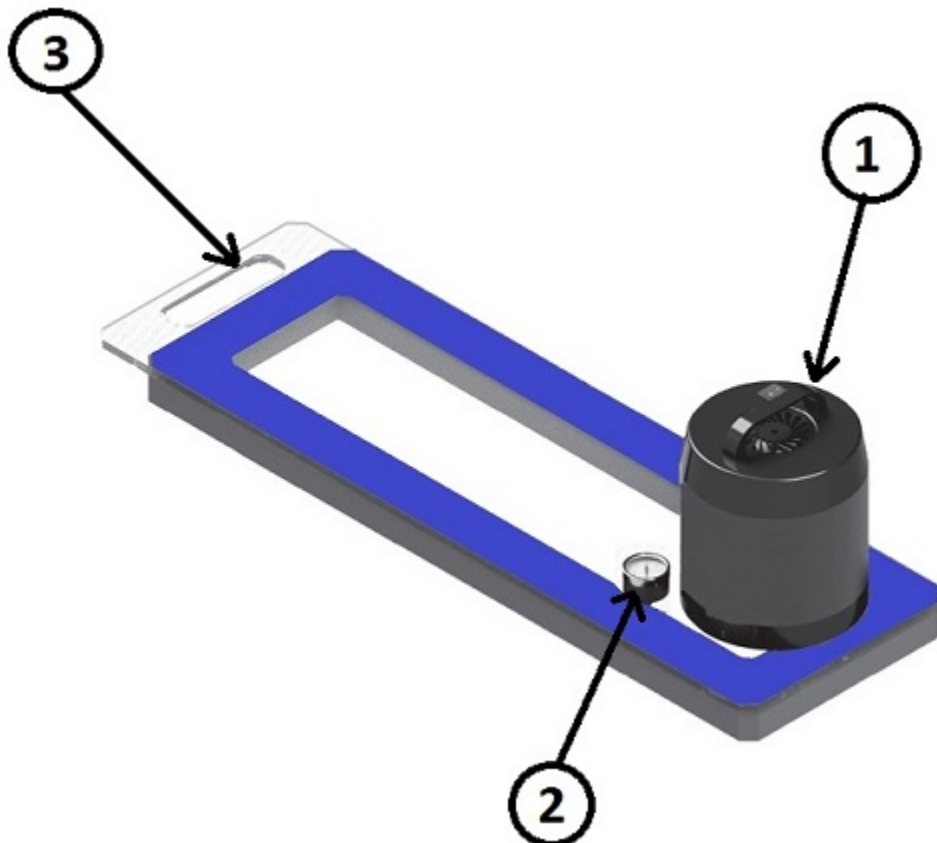


Figure 5.1

5.2 Test Results

A weld is considered as having passed when the negative pressure read on the Vacuum Gauge (Item 2, Figure 5.1) builds quickly and holds throughout the test. If the seam fails to hold vacuum and shows bubbles, the seam appears to be bad.

6 Maintenance & Repair

In case of a Vacuum failure or Plate failure, the entire motor can be removed using just three screws using a 4mm hexagonal key (Item 1, Figure 6.1).

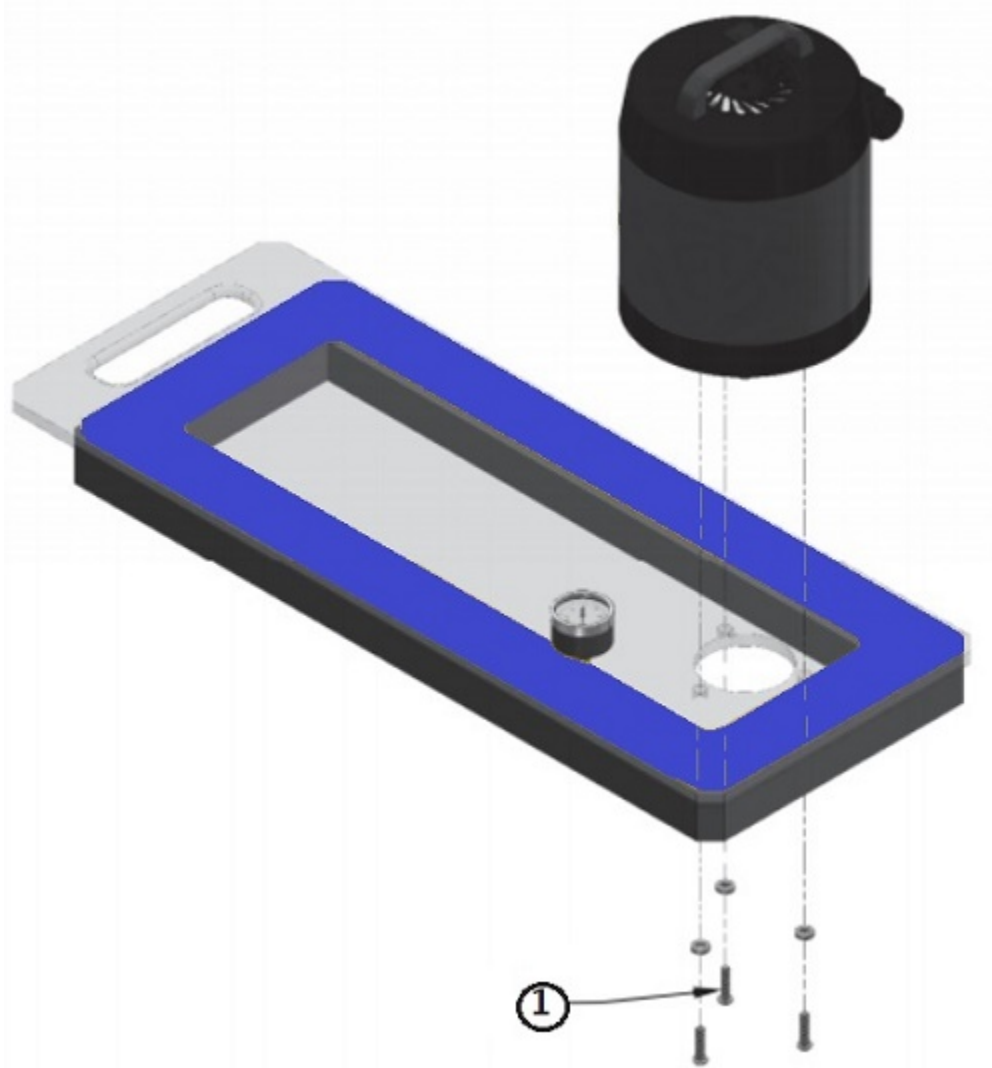


Figure 6.1

Barnes

Plastic Welding Equipment Ltd.

Unit 11, Hamilton Street, Blackburn, Lancashire, BB2 4AJ

Tel: +44 (0) 1254 660910 Fax: +44 (0) 1254 660915

E-mail: info@plasticweldingequipment.co.uk Website: www.plasticweldingequipment.co.uk

7 Factory Servicing

In the event your Vac-Plate Vacuum Motor should require a factory service, the motor can be detached and sent in for service. Refer to the following step for preparing the Vac-Plate for return. Unless previous arrangements are made, shipping charges and insurance are the responsibility of the customer. Ship the packaged Vac-Plate Motor to **Barnes Plastic Welding Equipment Limited** at the address below:

Barnes

Plastic Welding Equipment Ltd.

Unit 11, Hamilton Street, Blackburn, Lancashire, BB2 4AJ

Tel: +44 (0) 1254 660910

E-mail: info@plasticweldingequipment.co.uk

Website: www.plasticweldingequipment.co.uk

Warranty

All equipment of manufactured should be free from defects in materials , workmanship , mechanical parts, and labour for a period of one year from the date of shipment to the original buyer and ninety days for electrical parts. This warranty excludes normal wear items such as gears, bearings and chains. The liability under this warranty is limited to replacement parts and labour on equipment when the equipment is returned prepaid to our repair/service department with prior authorization from Barnes Plastic Welding Equipment Limited and upon examination by Barnes Plastic Welding Equipment Limited, is determined to be defective.

As additional protection , Barnes Plastic Welding Equipment Limited warrants that for a period of 90 days from the date of shipment to the original buyer, pending prior authorization from Barnes Plastic Welding Equipment Limited, there will be no charge for service related shipping of parts. After 90 days, all costs incurred for shipping the equipment or parts are the responsibility of the buyer. Our warranty for this equipment is rendered void if the unit has been repaired, taken apart or modified, or attempted to be, unless such actions have been taken in accordance with written instructions received from Barnes Plastic Welding Equipment Limited. The warranty is also void if the equipment has been subjected to abuse, accident or other abnormal conditions.

IF ANY FAULT DEVELOPS, THE FOLLOWING STEPS SHOULD BE TAKEN:

1. Notify Barnes Plastic Welding Equipment Limited by calling + 44 (0)1254 660910 Please be prepared with the model number , serial number and full details of the equipment issue. Upon receipt of this information, service data or shipping instructions will be provided by Barnes Plastic Welding Equipment Limited Do not return the unit for repair without first contacting Barnes Plastic Welding Equipment Limited for instructions.
2. After the initial 90 day period, on receipt of shipping instructions, forward the equipment prepaid to the Barnes Plastic Welding Equipment Limited as instructed. If requested, an estimate of the charges will be made before work begins, especially with those cases were the Barnes Plastic Welding Equipment Limited product is not covered by the warranty.
3. If the original carton and packing are not available , the product should be packed in a container with a strong exterior and surrounded by a protective layer of shock-absorbing material. Barnes Plastic Welding Equipment Limited advises returning the equipment at full replacement value to the carrier.

Barnes Plastic Welding Equipment Limited reserves the right to make changes in design at any time without incurring any obligation to install the same changes on units previously purchased.