MILLER WELDMASTER®
The First Choice Globally

MANUAL

IMPULSE Extreme®

This instruction manual is intended to be a guide when operating the Impulse3.0 Extreme Seam welder. To ensure optimal performance from your welder, please follow the recommendations and specifications precisely.

For more technical information regarding this machine call our Resolution Center at 1-855-888-WELD or email service@weldmaster.com.

You can also subscribe to Miller Weldmaster Insiders to stay updated on tech tips, machine maintenance updates, and more at www.weldmaster.com/insiders.

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1.0 Intended Use

The Impulse Extreme is a Thermal Impulse machine intended to heat-seal weldable thermal plastics such as:

- Vinyl (PVC) laminated and coated fabrics
- Vinyl (PVC) and Polyurethane (PU) films
- Polyurethane (PU) and Polypropylene (PP) coated fabric
- Polyethylene (PE)
- Thermoplastic rubber (TPR) film and fabrics
- Non-woven Polyester and Polypropylene
- Various Fusing Tapes
- Weldable Webbing
- Rigid Extruded Products
- Acrylic Fabrics (with the use of Extreme Seam Tape TM)

The manufacturer does not approve of:

- Any other uses for these machines.
- The removal of any safety guards while in operation.
- Unauthorized modification of the machines.
- Using replacement parts that are not manufacturer-approved.

Only a properly-trained technician may operate and/or perform any routine maintenance or repairs to the machines.

NOTE: The manufacturer will not be held liable for any damage or injuries occurring from any inappropriate use of this machine.

2.0 Explanation of Warnings

There are several different warning symbols placed on the Miller Weldmaster Impulse 3.0. The symbols are to alert the operator of potentially hazardous areas on the machine. Familiarize yourself with their placement and meaning.

Caution: Laser Radiation
Do not stare into beam or view directly with optical instruments. The "Caution: Laser Radiation" symbol is placed just below all the lasers on the Impulse 3.0 Extreme. Do not look directly into the laser source. They are for fabric alignment only. Use caution when calibrating the lasers.

Caution: Hot
The "Caution: Hot" symbol is placed on a guard near hot surfaces.

Danger: Pinch Points
The "Danger: Pinch Points" symbol is placed near any potential pinch points. Do not place any body parts near these sections of the machine while the machine is running.

Caution: Unplug Machine
The "Caution: Unplug Machine" sticker is placed near the opening of the cabinet and all access panels. To prevent electrocution, the machine should always have the power disconnected before the cabinet door is open.

2.0 Explanation of Warnings

Warning: Keep Hands Clear
The"Warning: Keep Hands Clear" sticker is placed on the Heater Assembly. To prevent any pinching or burns, be aware of the location of your hands at all times.

Warning: High Temperature Air
The "Warning: High Temperature Air" sticker is placed on the Heater Assembly.

Caution: Electricity
The "Caution: Electricity" sticker is placed near areas that contain electrical.

3.0 Electrical and Air Requirements

Warning! Only a qualified electrician may connect the electrical power.

Electrical Supply

Due to the number of different style outlets available, the cord will not include a plug. It is recommended that your electrician install a plug that is comparable to your style power outlet. You may choose to have your power cord hard-wired into your Power Supply. It is recommended that your electrician use a Junction Box with an ON/OFF switch. The Miller Weldmaster Impulse Extreme has the following electrical requirements:

- 40 Amperes - Three phase - 230 Volts
- 40 Amperes - Three phase - 400 Volts
- 40 Amperes - Single phase - 230 Volts

Shop Air Supply

The Miller Weldmaster Impulse Extreme includes an In-Shop Air Supply Valve that allows quick connects and disconnects to your shop air supply. Due to the number of different style airline connectors, a male quick-connect is not included. You will want to select a male quick-connect with a ¼ inch NPT (National Pipe Thread) to match your female quick-connect. The Miller Weldmaster Impulse Extreme requires the following shop air requirements:

- Minimum of 5cfm at 120 psi
- 140 liters/min at 8.2 Bar

4.0 Principals of Heat Sealing

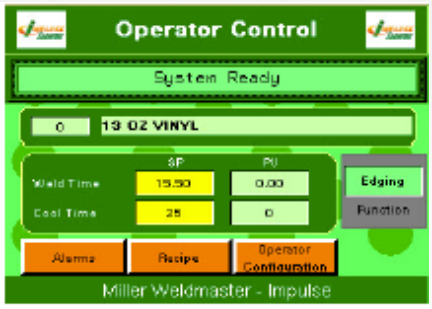
Heat: The heat required for the welding operation is created electrically by two heating elements located on each sealing bar.

Time: The amount of time the heat and pressure is applied to the fabric or film. This time allows the heat to penetrate into the fabric or film and then cool.

Pressure: The pressure is applied to the fabric or film through the sealing bars. The sealing bars apply.

Summary: The correct combination of heat, pressure, and time will allow you to achieve a properly welded seam.

5.0 Definition of Controls



(fig.07) Miller Weldmaster PLC Screen

Operator Control : System banner bar notifies the user of the machines current process as well as any alarms that may be present. This will display many different phrases so the operator knows what process the machine is currently in.

Recipe Bar: This is a reference as to what the current recipe is. As well as the name of the recipe that the operator can change in the recipe screen.

Weld Time:
SP: Set Point. Set point is the amount of time the heat elements are on during the welding cycle. This is a changeable Value. To change the Set point touch the screen area displaying the current Set point. A key pad will pop up. This will allow the Set point to be entered. A minimum time of 1 second to a maximum time of 30 seconds can be entered.

PV:Present Value. During the welding cycle the Weld Present Value will display the elapsed time of the Heating cycle. This time will start at 0.00seconds and count up to the Weld time set point.

Cool Time:
SP: Set point. The Cool Time Set point is the amount of time the heat elements are off during the welding cycle. This is a changeable set point. To change the Cool Time Set point touch the screen area displaying the current Cool Time Set point. A key pad pop up will allow the Cool Time Set point to be entered. A minimum time of 1 second to a maximum time of 99 seconds can be entered.

PV:Present Value. During the cooling cycle the Cool Time Present Value will display the elapsed time of the cooling cycle. This time will start at 0.00 seconds and count up to the Cool Time Set point. (Fig.07)

5.0 Definition of Controls

Function Button
This allows the operator to control what mode the machine is set to. There are 4 modes to choose from as follows:

Weld: welding mode for overlap welding.

F/w: Fold and weld. This creates a fold from a flat hem to a 2.5" pocket, then positions the seam for welding.

F/w/t: Fold With Tape. This is for inserting the heat welding tape for acrylic fabric or traditionally non weldable fabrics.

Edging: This function is for applying all of your edging to a panel. Mainly used for the zipper application. Utilizing the zipper guide as well as the prefolder.

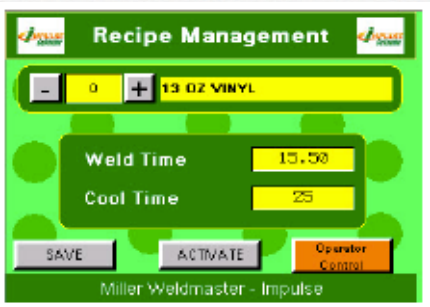
Recipes
This takes the operator to the Recipe Screen.

Alarm
This takes the operator to the Recipe Screen.

Operator Configuration
This takes the Operator Configuration Screen.

Recipe Changed
This button flashes to notify you if the current recipe has been changed from the previously saved version. If the current recipe is valid you can push the Recipe Changed button to save the current recipe. This will make the button hide once again.

5.0 Definition of Controls



(fig.08) Recipe Management

Recipe Management Screen
This is where we can add edit and manage all the recipes we have stored on the machine. The – and + Buttons are to change the recipe up and down to choose the desired set recipe. By pushing the "-" button moves the recipe to the next lower recipe. Pushing the "+" moves the recipe to the next higher recipe. The Field directly to the right of the recipe number is for inputting the recipe name. Touch in the field and an alphanumeric keyboard will pop up allowing you the capabilities to input titles. We can input items like material type, the material name, or even the material weights.

Weld time: This is the amount of time we want the machine to cycle the heat on for. This is a changeable value. To change the Weld Time touch the screen area displaying the current Weld Time. A key pad will pop up allowing the Weld Time to be entered. A minimum time of 1 second to a maximum time of 30 seconds can be entered.

Cool Time: This is the amount of time we want the machine to cycle for the water cool down. This is a changeable value. To change the Cool Time touch the screen area displaying the current Cool Time Set point. A key pad pop up will allow the Cool Time Set point to be entered. A minimum time of 1 second to a maximum time of 99 seconds can be entered.

Save button: This button allows us to save the current created recipe.

Activate: This button allows us to activate the current recipe. When changing between recipe settings you will have to activate the current set recipe for it to properly take effect. Touch the activate button to use that recipe.

Operator Control: This button will take you to the main Operator Control screen.

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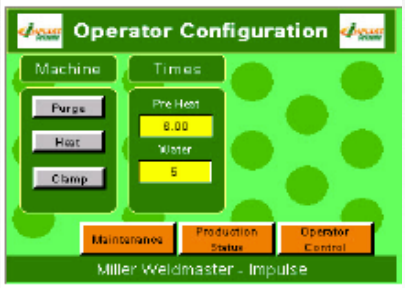

(fig.09) Operator Config.

Operator Configuration Screen

Purge: This button allows us to purge the water pump manually. The main reason for this is to be used after a water tank flush and fill. This allows us to make sure all the air is removed from the water pump prior to trying the welding cycle so we do not get a low water flow alarm.

Heat: This button controls the heat to the machine. Any time the machine is cycled to the on position the operator will have to turn the heat switch on. It will illuminate green when depressed notifying that it had been turned on.

Clamp: This is used to open and close the fabric clamp. This button is only used when a fold function is selected.

Pre Heat: This time is to allow the heating elements on the machine to stretch prior to engaging to the welding stage. During this time the bars will remain open at the center point away from the fabric. This time is to help lengthen the life expectancy of the bands as well as shorten weld times on most substrates. This time needs to be set between 4-7 seconds depending on the application.

Water: This time is for our second cool down cycle. When the bars release the material we then cool the welding bars down a second time. This allows us to maintain the same seam temperature repeatedly. This timer should be set between 10-20 seconds depending on application.

Maintenance: This button allows MW technicians to trouble shoot the machine.

Production status: This button takes you to the Production status screen.

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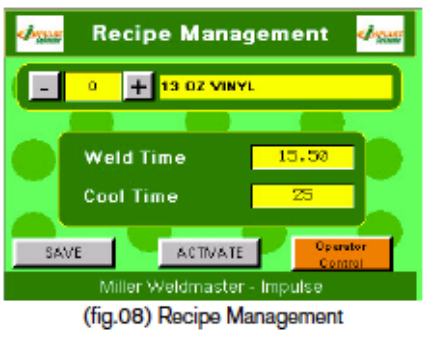

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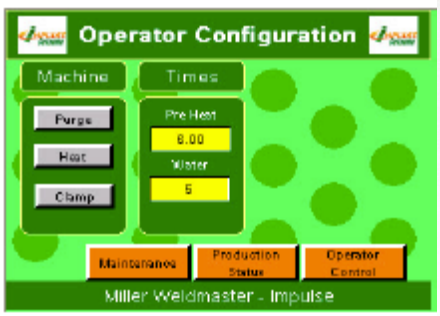

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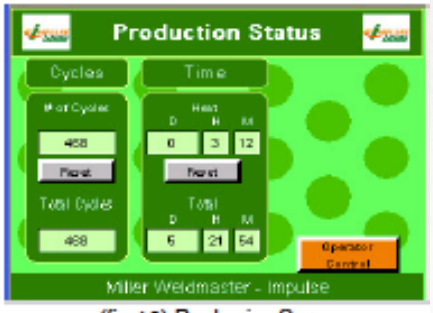


(fig.10) Production Status

Production Status Screen

Cycles: This is the number of time the weld bar has went to the fully down or welding position.

Reset: This button allows us to reset the #of cycles counter. This is useful when performing maintenance or routine preventative maintenance. Keep a log if possible after any reset and maintenance performed.

Total Cycle Times: This counter is a lifetime counter for the machine cycles.

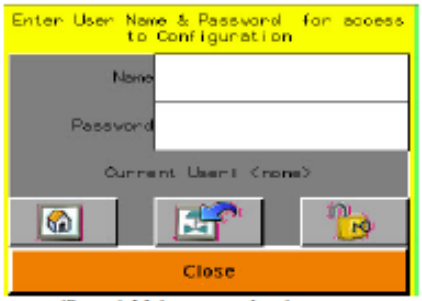
Time: This counter is to display the amount of time the heat has been on for.

Reset: This button allows us to reset the Heat time. This is useful when performing maintenance or routine preventative maintenance. Keep a log if possible after any reset and maintenance performed.

Total: This counter displays the lifetime heat time.

Operator Control: This button will take you to the main Operator Control screen.

5.0 Definition of Controls



(fig.11) Maintenance Login screen

(fig.12) Alarm Active

(fig.13) Reset button/Pause button

Maintenance Screen

Screen: Pressing the Maintenance Button will bring up a screen to enter in a user name and password. The appropriate password must be entered in order to gain access to the maintenance screens. Please check with your supervisor for the password. Only Authorized persons are to enter into the maintenance screen.

Alarm Active Screen: This will display any active current alarms. (fig. 02)

Alarm History: This will take you to the Alarm History screen.

ACK: This button is used to acknowledge any currently active alarms.

Operator Control: This button will take you to the main Operator Control screen.

Reset Button

Blue Push Button: Reset button. Any time the machine is turned on or brought back from an e-stop state. The Blue reset button will have to be pressed. (fig. 03)

Pause Button

Yellow Push button: Pause. This button is to pause the machine at any point during any process. When pressed the machine will return all bars to the home position and cycle water, this is to cool the bars down if it was in a welding state.

5.0 Definition of Controls

(fig.14) Lights/Lasers

3 Way switch : Three way switch on side of machine is for Lasers lights and lasers. This switch is on the right side of the machine. In the laser position the lasers are on. The off position turn them off. The lights/laser position turn the lights and lasers on.

(fig.15) Pocket Size

Forward/Reverse switch : Forward Reverse switch is for moving the fold system to create the desired pocket size. From a lay flat hem to a 2.5” lay flat pocket.

6.0 Safety Precautions

NOTE: For the safe and correct use of the machine, it is necessary to read through these precautions carefully before use.

1. All the users who operate this machine should have this user's manual in hand, and should keep it in an accessible location after reading for future reference.

2. The warning instructions provided in this manual and on the machine are meant to prevent personal injury. Equipment damages will be caused if relevant requirements are not observed and corresponding measures are not taken.

3. The persons operating this machine are required to be familiar with the steps and requirements for installation, adjustment and operation of this machine. They must also be familiar with the corresponding measures to be taken for any emergencies that could possibly happen by meeting the following conditions:

- Having received training.
- Able to switch the machine ON/OFF.
- Able to safely connect the machine to the power supply which is appropriate for local electrical regulation and code.
- Able to conduct the proper maintenance, operation and protection of the machine.

4. There is dangerous voltage on this machine. During operation after power up, do not open the electric cabinet door and the electrical control box to avoid possible electric shocks. This machine is provided with grounding and its input power must be connected to permanent-fixed power lines.

5. All the adjustment devices of the machine are adjusted to their working state before delivery. Any non-professional persons are not allowed to change the adjustment. If any adjustments are necessary; such adjustments should be made by authorized persons.

6. Children and other persons except operators should be prevented from touching or accessing the machine. Before installation and use of the machine, please read these safety rules, warnings and warning labels fixed on the machine.

7. Ensure that warning labels are located at appropriate positions, and replace any damaged or lost labels.

Tips: Putting the machine into service safely and successfully

- Get familiar with all the safety instructions; as well as installation, operation and maintenance instructions provided in this manual.
- Understand the correct handling, loading/unloading and maintenance procedures for the machine.

6.0 Safety Precautions

Safety Precautions before Use

1. Before starting up the machine, please check it carefully and guarantee that there are no foreign matters under the sealing area. If any unusual conditions are found during operation, immediately press the Emergency Stop Switch and then check for abnormal conditions.

2. When the Sealing Cylinder rises, the fabric is not completely cooled. Hence, it should be raised slowly from one side to the other side. Never pull it down suddenly. This will cause damage to the sealing and affect the sealing quality.

3. If the machine is not in use, please turn off the air supply and power supply to avoid any dangers.

4. Avoid heating without fabric placed in position.

5. Do not use high temperature without prior testing in order to prevent damages caused to the Teflon cloth. If plastics are melted and adhered to the cloth due to incorrect operation, do not remove it by using a hard tool. Please remove it by using a soft cloth or other soft tools. Otherwise, the Teflon cloth will be damaged and there will be direct adverse effects on the sealing quality.

7.0 General Description

The Impulse Extreme sealing machines are pneumatic instantaneously-heating double-sided sealing machines that are applicable to the heat sealing of fabrics and films in a variety of industries. They are horizontal sealing machines with a cylinder acting as the closing force source. This provides consistent sealing pressure, improved sealing quality and improved working efficiency. It has one upper heating wire and one lower heating wire for the heating of the sealing area that provides high power, short heating time for sealing. The Impulse Extreme machine offers unique capabilities which produce quality products that traditional heat sealing machines do not.

The accurate heating and cooling time control of this machine provide for reliable heat sealing of products. The Impulse Extreme machine can seal a wide variety of fabrics and films of many different thicknesses.

This machine has a sealing area that is 118in. (3000mm) long. Its sealing width (namely the width of the electric heating wire) ranges include 15mm, 20mm, and 25mm.

8.0 Technical Specifications

Type Designation: Impulse Extreme Sealing Machine

Technical Specification: Impulse Extreme Sealing Machine

- **Type:** Impulse Extreme sealing machine
- **Rated Voltage**: 220v, 50/60hz
- **Rated Power:** 8000 W
- **General Air Pressure:** 120psi (8.3bar)
- **Max. sealing length:** 118in (3000mm)
- **External Dimensions:** 140in X 48in X 70in (3500mm X 1200mm X 1800mm)
- **Electrical Document Number:** IE-0109-1200 (The documentation number is the serial number of the machine. This number is located on the serial tag on the machine.)

9.0 Transportation Specs and Storage

Transportation

Transporting Within a Production Facility
Due to the weight of the Miller Weldmaster machines, the manufacturer requires a forklift or tow motor to be used. The forks are to be inserted below the bottom frame along the center of gravity. Lift slowly to insure proper placement of forks.

Transporting Outside Production Facility
Secure the machine to the pallet and protect the various controls and features by crating the machine. The manufacturer requires the Miller Weldmaster machines to be secured to a pallet and loaded onto a truck using a forklift or tow motor. The forks are to be inserted below the bottom frame along the center of gravity.

Installation

1. After unloading and unpacking the machine, inspect the entire machine to insure all parts and components are in good condition.

2. The machine should be installed in an area with suitable space to perform sealing operations. The area should be clean and in a well lit area allowing safe operation of the system.

Storage

The manufacturer recommends that any time the machine is not in use, it must be protected from excess dust and moisture. The operator should familiarize themselves with the warning symbols on the machines to be alert to the potentially hazardous areas on the machine.

10.0 Maintenance

1. Before using the machine the Teflon tape of the seaming area must be inspected. The sealing surface of the Teflon must be free of debris. The Teflon should not be cut, warn through, or have holes which may expose the heating element.

2. If debris is present on any sealing surface of the Teflon it must be cleaned before using the machine. To remove debris from the Teflon a clean dry towel should be used with light pressure. A hard scraping devise must never be used. If the debris can not be removed the Teflon should then be replaced.

Replacement of Electric Heating Element and Teflon Tape

(fig.01)

1. The power and air systems must be turned off before servicing the machine. The “Lock out tag out” procedure must be followed before service of any kind is preformed. (fig.01)

(fig.02)

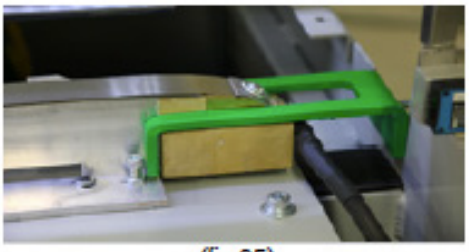
2. Remove the old Teflon tape from the sealing bars.

(fig.03)

3. Remove end panels on machine

10.0 Maintenance


(fig.04)


(fig.05)


(fig.06)

4. Install band clamps on each end of sealing bar being worked on. The clamps will install over the insulator block and are used to compress the springs in the tension blocks. Tighten the bolt snugly against the tension block. (fig.04/fig.05)

5. Repeat step 4 on opposite end of same sealing bar. (fig.04/fig.05)

6. Remove the bolt and retaining clip from the band. Repeat on opposite end. (fig.06)

7. With the Heating element completely removed, inspect the condition of the silicone strip. The silicone strip must be inspected for hard spots, flatness, and surface defects. If the surface condition is found to be in poor condition it must be replaced. The silicone strip is what maintains flatness of the seal as well as helps to maintain even pressure.

8. If necessary to replace the silicone strip refer to page 26.

9. With the silicone strip inspected and replaced if necessary the new element can be installed. To install the new element line up the hole on the element with the retaining clip and bolt to the brass tension block. Making sure the band, and the retaining clip, are lined up flush with the sides of the brass blocks. Tighten down the bolt. And repeat on the opposite side.

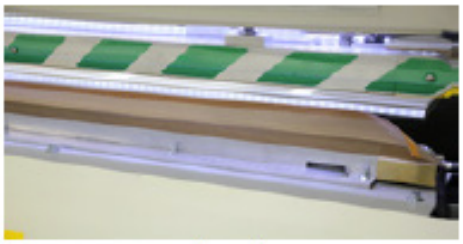
10. Remove clamps on ends of bar. By lessoning the nut on outer most sides of clamps. When loose pull clamps away from sealing bar.

11. Replace Teflon Layer see page 25.

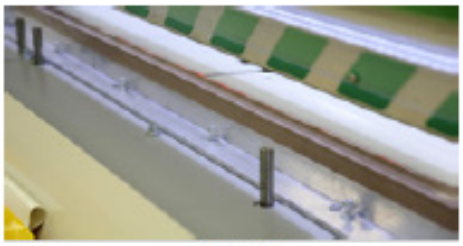
12. Repeat all steps above for opposite sealing bar.

13. Once all steps are complete replace all guards and covers back on the machine. The machine is now ready to be used again.

10.0 Maintenance



(fig.07)



(fig.08)

Replacement of Outside Layer of Teflon Tape

1. Remove the Teflon tape for the sealing bar by peeling the tape off. The tape is held on by adhesive on each edge of the tape.

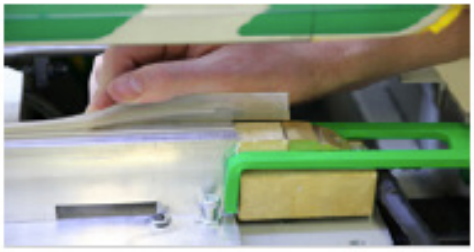
2. Once the Teflon tape has been remove, adhesive may remain on the heat sealing bars. Remaining adhesive must be cleaned from the sealing bar insuring proper adhesion on the replacement Teflon tape. Remaining adhesive can be clean off with a small amount of rubbing alcohol and a clean rag. Use small amount of rubbing alcohol insuring all liquid is completely dry before installing the replacement Teflon.

3. Install the replacement Teflon on one side of the sealing bar making sure the edge is held straight from one end of the sealing bar to the other (fig.07).

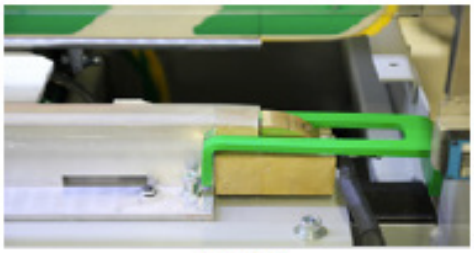
4. Fold the Teflon tape to the opposite side of the sealing bar, pull the Teflon tape flat and snug across the sealing bar, and adhere the edge to the sealing bar making sure the Teflon tape is wrinkle free (fig.08).

10.0 Maintenance

(fig.09)



(fig.10)



(fig.11)

Replacement of Silicone Strip

1. Remove the silicone strip from the sealing bar. With the silicone strip remove, inspect the groove in the sealing bar to insure the groove is free of debris. (fig.09)

2. Install the silicone strip by starting at one end of the sealing bar. The edge of the silicone strip must start at the outside edge of the insulating block at the end of the sealing bar. Where the silicone strip cover the insulating block the tab on the back side must be cut flush with the back of the silicone strip (fig.10)

3. Install the silicone strip down the length of the sealing bar insuring the tab of the silicone strip fit securely and completely into the groove in the sealing bar (fig.11).

4. Once the silicone strip is installed down the length of the sealing bar follow step 2 on the opposite end of the sealing bar.

5. Inspect the welding surface of the silicone strip to insure it is flat and even the full length of the sealing bar.

11.0 Operation

1. The power supplying the machine must comply with local electrical codes.

2. Connect the air supply to the regulator/filter water separator. The regulator should be adjusted to120 psi (8.3 bar)

3. A water tank is located at the rear of the machine. The water tank is used to hold the water circulated through the sealing bars for cooling. Water must be added to the tank. Fill the tank until the water level float is covered with approximately 25mm of water. When the water level is too low an E3 alarm will appear on the digital touch pad.

4. The foot pedal cord must be plugged into the foot pedal socket located near the power on/off switch on the back side of the machine.

5. Connect 220 V single-phase power supply, turn ON the Power Switch and check if the Power Indicator Lamp is lit up (see Power Supply Circuit Diagram).

6. Using the HMI touch screen, the heating and cooling time should be adjusted for the fabric or film being seamed. See the HMI touch screen instructions for operation procedure. The heating time is generally set between 5 and 20 seconds. The cooling time is generally set between 10 and 40 seconds. Miller Weldmaster recommends the cooling cycle time to be greater then the heating time.

7. Insert test fabric or film into the sealing area. Once the test fabric or film is in place depress the foot pedal once. This will lower the upper sealing bar to its first stage. Stage one will lower the sealing bar to just above the lower bar. This allows the operator to make sure the fabric or film is positioned properly. Once the fabric or film is located, depress the foot pedal a second time. This initiates the welding cycle, heating time and cooling time according to the set points of the digital touch pad.

8. Once the sealing cycle is complete the test fabric or film should be removed from the sealing area. Before peeling the seam area wait until the fabric or film has cooled (some fabrics require an extended cooling time to allow the bond to cure). Once the fabric or film is cool, peel the seam area to test the bond.

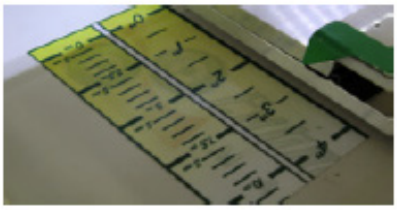
9. If the bond is weak the heating time should be increased.

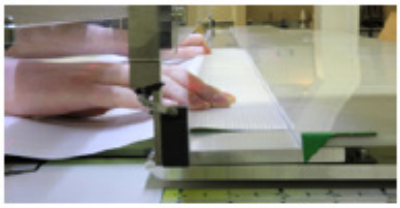
10. If the seam area appears over heated decrease the heating time. If the seam area appears to have shrunk, increase the cooling time.

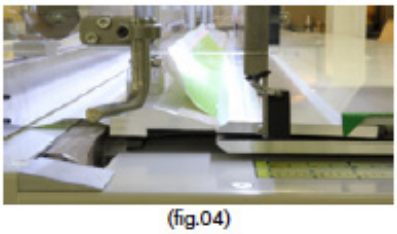
11. Coolant System: the coolant system circulates liquid through a liquid pump, flow sensor, fittings, tubing, upper and lower heat sealing bars, and coolant tank. For dependable component life a mixture of distilled water and coolant lubricant must be used. Distilled water must be used to insure the water is free of minerals and contaminants. For proper lubrication one gallon of Miller Weldmaster part number IECOOL should be used with one tank of distilled water (coolant tank holds 21 gallons or 80 liters of coolant). For replacement lubricant please contact Miller Weldmaster. Coolant system should be drained and coolant replaced once per year. IECOOL additive will not protect coolant system from freezing conditions. If the machine is exposed to freezing conditions the entire coolant system must be drained of liquid. Draining the water tank alone will not protect the system for freezing. Coolant line, pump, flow sensor, and bars must be completely drained of liquid.

11.0 Operation

(fig.01)


(fig.02)


(fig.03)


(fig.04)


(fig.05)


(fig.06)

Fabric Folding System Operation

1. Before using the Folding system of the Impulse Extreme machine the desired pocket size must be selected. The machine is capable of doing a flat hem to a 2 5/8" (65mm) Pocket. To adjust the pocket size use the Hem Pocket size control knob on the operator end of the machine.

   Moving the selector to Forward will give you a small pocket down to a hem. Moving the selector to Reverse will make the Pocket size get larger up to a 2 5/8" (65mm) Pocket. (Fig. 01)

2. Using the measuring rule as a guide set the fold plate at the desired pocket size and do a test weld to determine the actual pocket size is correct. (Fig. 02)

3. Place the fabric onto machine so the square edge of the fabric is fully in contact with the fabric fence. (Fig. 03)

4. Change the Seam type to the F/W function on the HMI Touch screen. This stands for Fold/Weld.

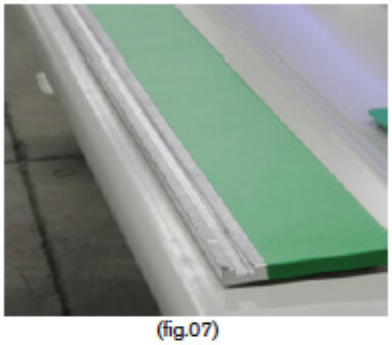
5. Depress the foot pedal to start the folding process. The material will be place onto the welding bar in the position it needs to be welded. After the folding process is complete, depress the foot pedal again to start the pre heat and welding functions of the machine.

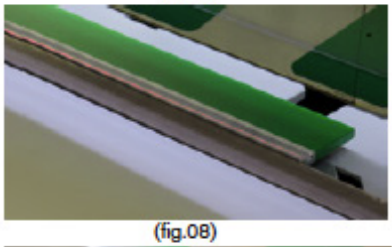
6. Fig.04 shows the material being folded by the fold system.

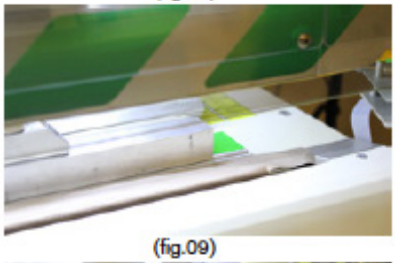
7. Fig.05 shows the material being moved into position to be welded.

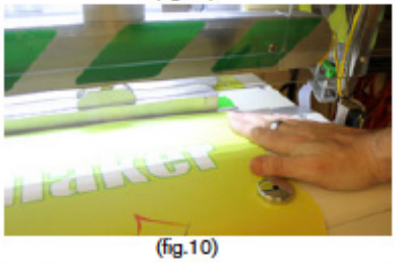
8. Fig.06 This shows the material in place ready to be welded.

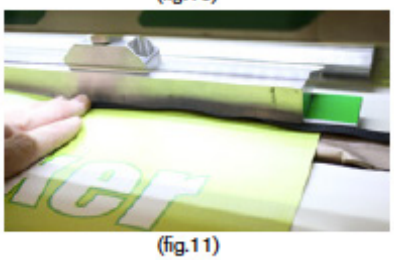
11.0 Operation

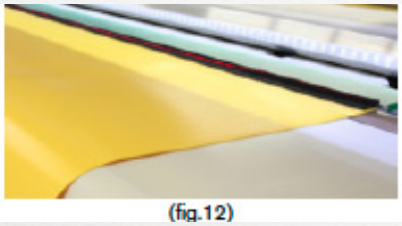

(fig.07)


(fig.08)


(fig.09)


(fig.10)


(fig.11)


(fig.12)

Edging

The Edging function is for the application of a weldable zipper to the edge of your panel. This option utilizes a special guide for the application of the zipper to maintain a straight and even seam. (fig.07)

1. Change the Seam type to the Edging on the HMI Touch screen.

2. Insert the Zipper guide into the machine. This is done by placing the guide on the back side of the welding bar. Holding it tightly to the back of the lower sealing bar. The guide is magnetic to help hold it securely in place.(fig.08)

3. Once Guides are installed Depress the foot pedal to bring upper Prefold bar into place to help hold zipper in place. (fig.09)

4. Place fabric in place. Making sure the edge of the fabric is tight up to face of the Edging Guide. Use some magnets to hold material from moving. (fig.10)

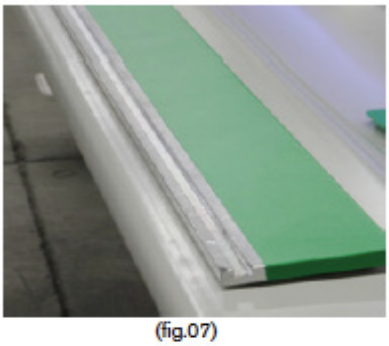
5. Insert Zipper from end of machine pulling the length needed to cover the desired Project. Trim the zipper that did not desired to be welded. (fig.11)

6. Depress Pedal to start the welding process.

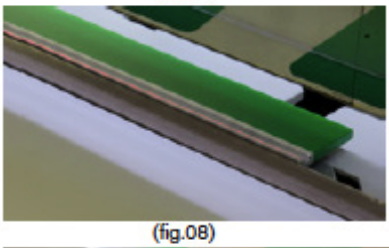
7. When complete you will have a zipper welded to the edge of your fabric panel see picture for reference of finished product. (fig.12)

NOTE: IT IS IMPORTANT TO NOT LEAVE THE EDGING GUIDES IN PLACE WHEN THEY ARE NOT BEING USED. THE POCKET/HEM FUNCTION WILL NOT WORK PROPERLY IF THEY ARE STILL IN USE. MACHINE DAMAGE MAY OCCUR.

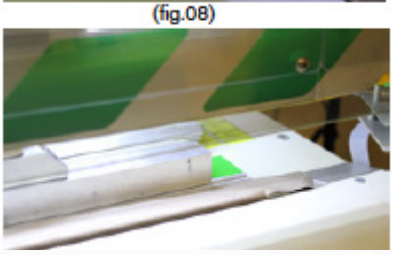
11.0 Operation

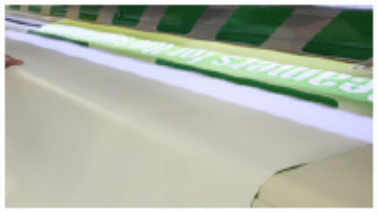


(fig.07)



(fig.08)





(fig.16)

Overlap Guide

Overlap Guides are used to help aid in the process of doing a standard overlap weld on the Impulse Extreme. (fig.13)

1. Change the seam type to the Weld function on the HMI Touch Screen.
2. Align your bottom panel to the front side of the welding bar and hold in place with magnets. (fig.14)
3. Place overlap guides in place by placing the larger tab down into the space between the trough lid and the welding bar. (fig.15)
4. Place the top panel into the welding area placing the square edge of the fabric up against the tab on the over lap guide. Place magnets to hold material in place. (fig.16)
5. Carefully remove all of the overlap guides from the machine.
6. Depress the Foot pedal to start the welding cycle.

NOTE: IT IS IMPORTANT TO MAKE SURE ALL OVERLAP GUIDES ARE REMOVED FROM THE WELDING AREA PRIOR TO WELDING MATERIAL. MACHINE DAMAGE MAY OCCUR.

Safety Warnings for Operation

- Unauthorized personnel must not operate the machine. Only properly trained persons should operate the Impulse Extreme.
- All safety warnings and safety devises must be in place before the machine is to be operated.

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