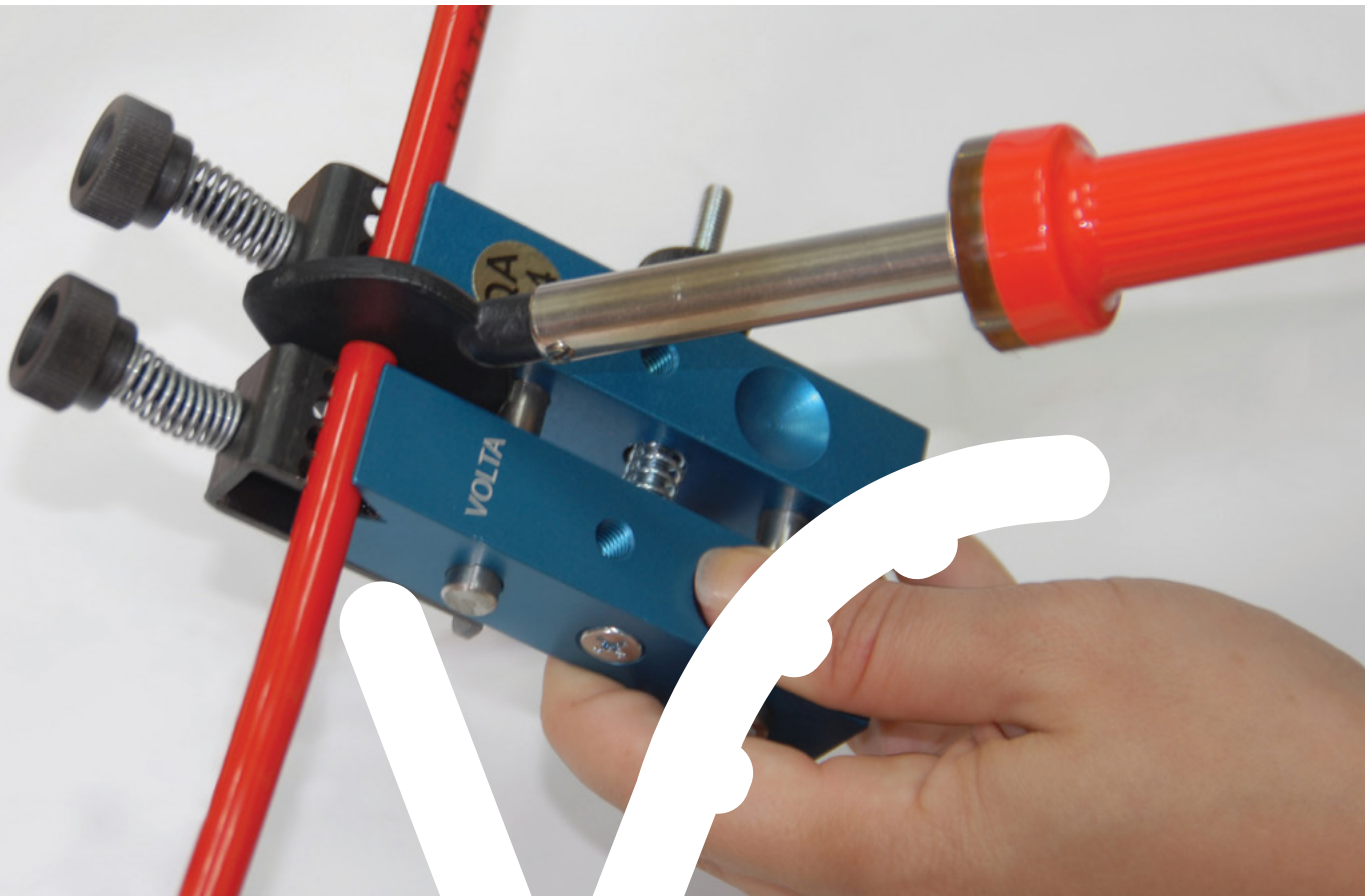




The Next Step in Belting



Welding & Fabrication Tools Mini VaR Tool Kit

Instruction Manual

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Thank you for buying the Volta Mini R8 Pliers.
If you have any questions about the use of this tool please contact our Technical Service Department at email: sales@voltabelting.com or visit our website www.voltabelting.com.

How to Use this Manual

This manual has been designed to provide the operator with all the necessary information on how to use the R8 mini pliers correctly.

Warnings in the manual should be carefully followed for your personal safety.

Be sure you carefully read the instructions in this manual before using the tool.

This will ensure use in compliance with safety standards.

Symbols Used in the Manual



This symbol is used for important Notes & Tips.



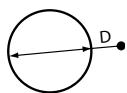
This symbol is used to warn you of actions that are dangerous for the operator. Read the associated warnings and instructions carefully.

Uses and Applications

The "Mini Pliers - R8" kit is designed for customer use in welding VOLTA ROUND and V-Profiles of various lengths. "Technical specifications" below.

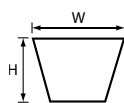
Round Profile

Size: 2mm ÷ 10 mm



'V' Profile

Size: Y/6mm ÷ A/13 mm



Using the tool for a use for which it has not been designed can be dangerous.

Unauthorized Use

It is forbidden to use the above tool for applications other than those provided for by the Manufacturer. Furthermore, it is also dangerous:

- | To use the tool for sections of belts having sizes other than those stated in “Technical Specifications”.
- | To use the tool for profile types made of materials other than those stated in “Technical Specifications”.

Technical Specifications

- | Profiles size capacity:
V-Profiles: Y/6; M/8; 3L/9.5; Z/10; A/13
Round Profiles diameters: 2mm up to 10mm at “Normally Open” position.
2mm up to 8mm at “Normally Closed” position.
- | Profile Material Types: This unit is designed to weld profiles of VOLTA ‘M’ and ‘H’ materials.
- | Mini-Welder voltage (Volts AC) 220 VAC for Europe, (110 VAC for USA)
- | Mini-Welder capacity (Watts) 40 W.
- | Total weight of kit – Approx. 2 kg (4.4 lbs)



For information regarding using this tool with VOLTA reinforced belts please contact your nearest VOLTA Belting distributor.

Spare Parts

In the case that the welder, Pliers or other related tools and equipment require repair, contact your nearest Volta Belting Technology distributor. In your inquiry do not forget to mention the part's name and number mentioned on page 6.



Warnings!

The manufacturer can accept no liability for applications other than those specified in this USER MANUAL or for unauthorized modifications or changes. Carefully read the instructions and warnings in this manual. Keep the manual near the welder for ease of reference. Failure to follow warnings can cause accidents and harm people.

General Safety Instructions

Use Personal Protection Devices (PPDs) in compliance with local regulations and European Union regulations and Council Directive 89/391/EEC in order to avoid the following hazards: crushing, burns, grazes.

The work area should always be kept clean, dry and orderly. Avoid accumulation of materials in work area.

Use only a clean dry cloth to clean the welder tip. Never use solvents or other flammable liquids.

Personal Protection Devices

Subject to the standard regulations in the user's country, the operator working with the tool may be required to use personal protection devices. It is recommended that you use:

Gloves: EN 388 compliant: mechanical risks while using cutting knives and trimmers.

Mask: EN 149 compliant: while welding, when belts containing toxic components are used*.

Hazards, Dangerous Areas & Warnings

When welding, always avoid the following dangerous situations:

- | Careful of crushing of fingers during belt pressing.
- | Careful of burns from touching the welder's rod and tip.
- | Inhalation of toxic substances while welding - It is important to avoid burning the profiles during welding. When the material is burnt it may release toxic fumes*.
- | Make sure the work environment is well ventilated.
- | Do not use the tool in an explosive atmosphere or in environments where there is a risk of fire breaking out.
- | Do not use the welder in damp environments.
- | Always weld on a non-flammable surface and maintain a suitable distance from surrounding materials, as heat can damage them.
- | When not in use, store the welder in its case in a dry and safe place.
- | Only use the welder at its rated voltage (see page 4 - Technical Specifications).
- | This welder has been built in compliance with the strictest safety standards. Do not carry the welder by its power cord.
- | Do not use the welder for purposes other than those it was designed for.
- | Protect the power cord from heat and contact with sharp edges.
- | Do not pull the cord to remove the plug from a power socket.
- | Make sure the power socket is properly grounded before connecting the welder.

*VOLTA belts DO NOT contain toxic components.

Mini R8 Pliers Components

1. Slider (2 each)
2. Locking bolt
3. Platform
4. Stud bolt (2 each)
5. Clamp bolt (2 each)
6. Clamp (2 each)
7. Locking nut
8. Rider
9. Long spring (2 each)
10. Spring
11. Locking Pin
12. Locking lever
13. Left handle
14. Right handle
15. Bushing (2 each)
16. Locking lever bolt
17. Handles bolt (2 each)
18. Knurled nut (2 each)

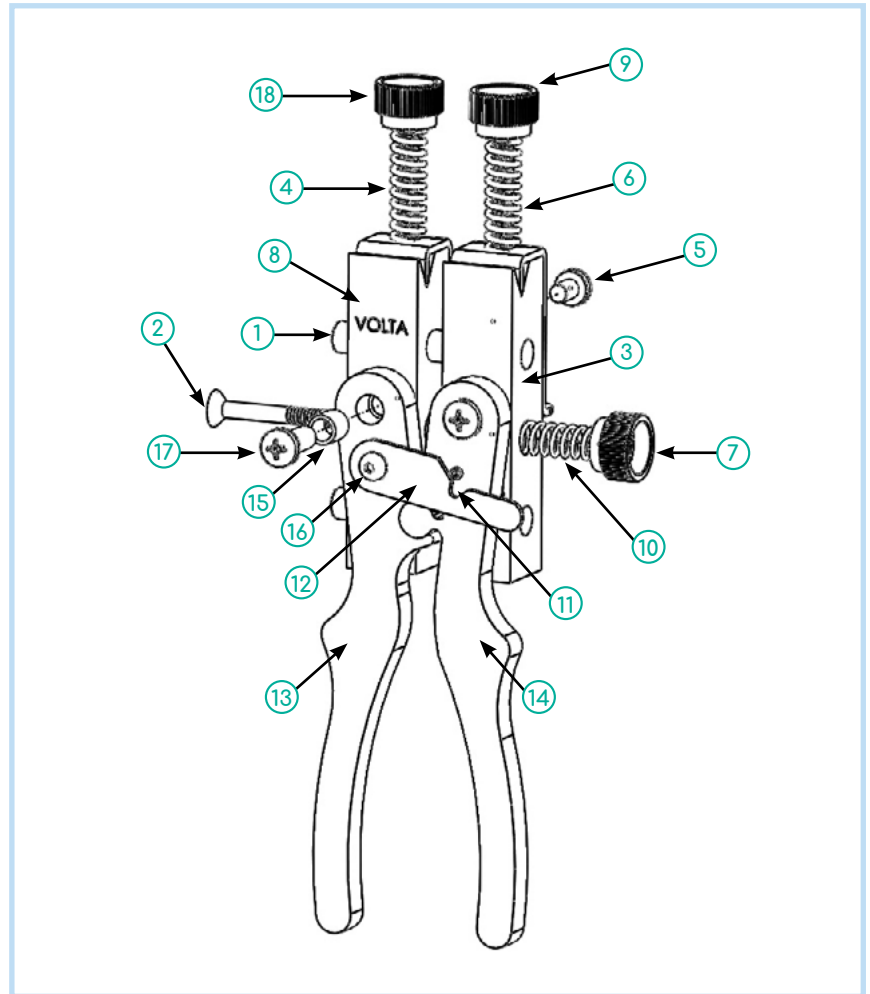


Fig. 1

Kit Contents

1. Tool Case
2. Mini-Welder
3. Welder Stand
4. Mini Pliers
5. Snipper
6. Trimmer
7. Handles (Optional)



Fig. 3

Welder Stand

The welder stand has been designed so that a user can safely prepare it for use by bending the stamped section to the form shown on the right in the Fig. 4.

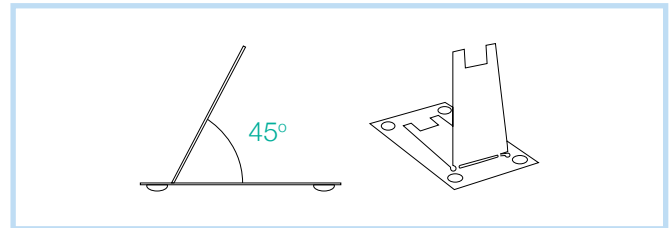


Fig. 4

Preparing the Welder for Use

1. Place the welder on its stand (Fig. 5).
2. Make sure there are no flammable objects nearby.
3. Make sure the welder and the cord are intact.
4. Make sure the supply voltage is the same as the welder's rated voltage, and that the socket is grounded and is protected by a residual-current circuit breaker.
5. Insert the welder's plug in a power socket.



Fig. 5



The welder must be allowed to warm-up for about 10 minutes before welding. This will ensure that the welder is at the correct operating temperature.



Welder Warnings!

Connecting the welder to an incorrect power source may cause damage to the welder and to its user.

The welder should always rest on the stand provided; this ensures correct heating of the welding tip and also prevents burning of work surfaces.

Never hang the welder by its cord; this will cause overheating of the element and inconsistent heating of the welder tip. Both conditions will damage the tool.

The welder is designed to operate correctly at its listed voltage. If you have doubts concerning the functionality of the welder, check the temperature of the welder tip. Correct and consistent welding is assured in the temperature range of 230° C to 250° C (446° F to 485° F).

Preparing the Pliers for Welding

The Mini R8 pliers can be used in two different positions (fig. 6).

- A. Normally open (default position).
- B. Normally Closed (can only be used with the optional handles).

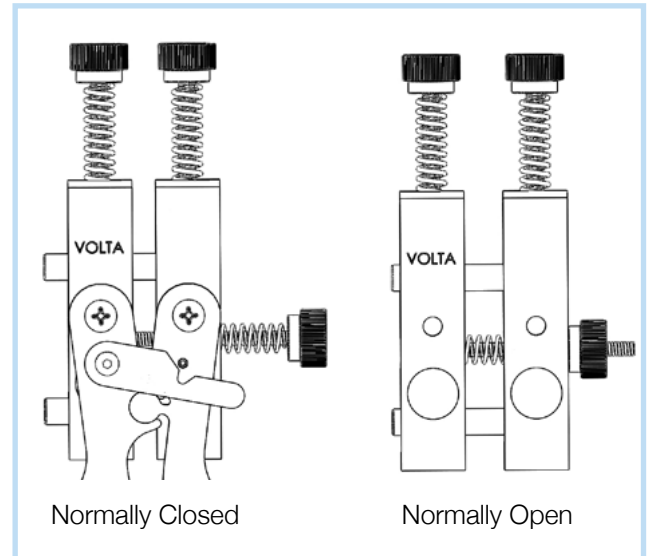


Fig. 6

Switching between the two R8 Mini Pliers positions:

1. Unscrew the locking nut (7) until it is completely disconnected from the locking bolt (2).
2. Pull the rider (8) away from the platform (3) until it is completely disconnected from the bars (1).
3. Place the spring (10) in the desired position (refer to Fig. 6):
 - a. Between the rider (8) and the platform (3) for normally open use.
 - b. Between the platform (3) and the locking nut (7) for normally closed use.
4. Screw the locking nut (7) to the locking bolt (2).



Do not use the normally closed position when welding round belts larger than 8mm.

Handles Assembly instructions (optional):

1. Make sure the Mini R8 pliers are in normally closed position.
2. Place the handles (13 & 14) against the Mini R8 pliers so that the holes in the handles are aligned with the threaded holes in the pliers.
3. Insert the two Bushings (15) into the holes in the handles.
4. Insert the two handles bolts (17) through the Bushings (15), and screw them into the threaded holes. Make sure the bolts are tightened.
5. The Mini R8 pliers are ready for use.

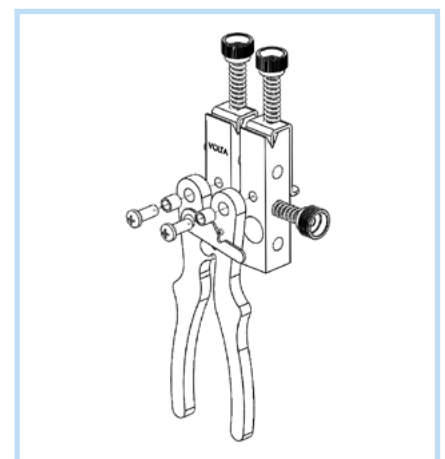


Fig. 7

Welding in normally open position

1. Cut the belt to the desired length using the snipper.
2. Using the clamping nut (7), adjust the pliers, leaving a distance of $8 \div 10$ mm between the platform (3) and the rider(8) (Fig. 8).
3. Push to open the clamp (6) and place the belt edges so that the ends are touching approximately at the centre of the pliers gap (Fig. 8).
4. Release the clamp and allow the spring load to lock the belt ends in place. Adjust the knurled nut (18) if needed. Correct locking positions for VaR belts shown in Fig. 9.

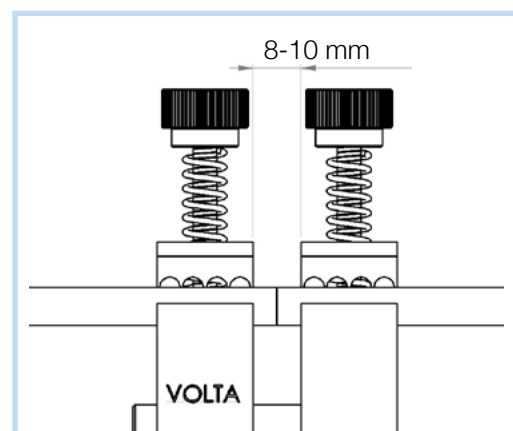


Fig. 8

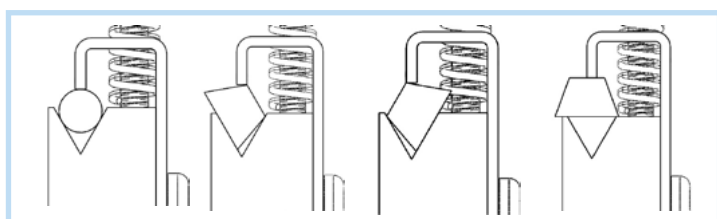


Fig. 9



Make sure the belt ends are aligned. In case of misalignment, align the profile.

5. Increase the distance between the pliers to $W + 6$ mm. W refers to the welder tip's thickness (for VOLTA Mini welder: $W = 4$ mm).
6. Place the welder's tip between the belt edges and close the pliers, pressing lightly, until belt edges melt into a $0.5 \div 1.0$ mm crown (Fig. 10).
7. Release the pliers quickly and pull welder away (Fig. 11).



Avoid pulling excess molten material out of the welding area when removing the welder.

8. Close pliers quickly but gently and tighten the locking nut (7) (Fig. 12).



After welding, allow cooling time of $2 \div 5$ minutes (depending on belt diameter).

9. Push the clamps to release the belt and trim melted residue with the trimmer.



Allow additional 10 minutes of cooling time before using the belt. The period of time can be shortened by using an air gun or water.

10. The VOLTA belt is now ready for long lasting and reliable use.

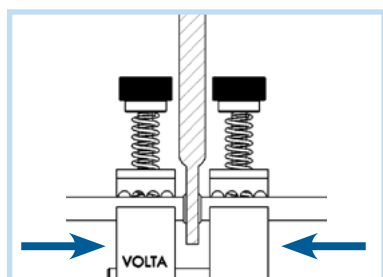


Fig. 10

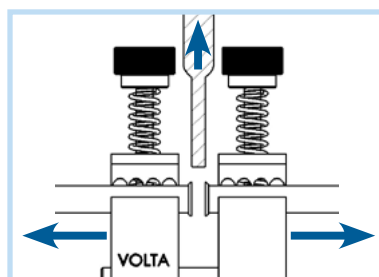


Fig. 11

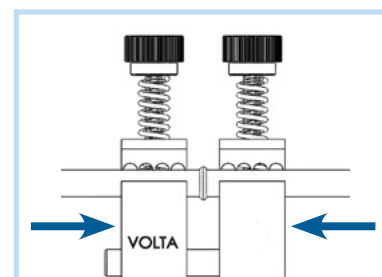


Fig. 12

Welding in normally closed position

1. Cut the belt to the desired length using the snipper.
2. Squeeze the handles together to open the Pliers and lock in open position using the locking bar (12). (Fig. 13).
3. Push to open the clamp (6) and place the belt edges so that the ends are touching approximately at the centre of the pliers gap (Fig. 14).
4. Release the clamp and allow the spring load to lock the belt ends in place. Adjust the knurled nut (18) if needed.
Correct locking positions for VaR belts shown in Fig. 15.

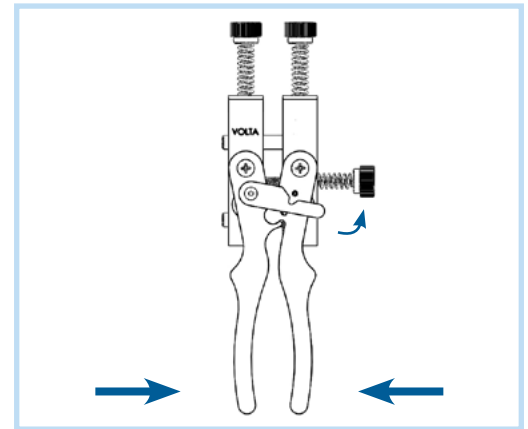


Fig. 13

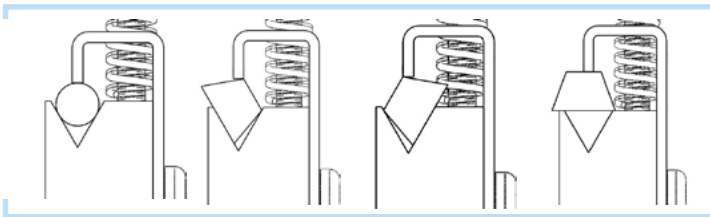


Fig. 15



Make sure the belt ends are aligned. In case of misalignment, align the profile.

5. Open the Pliers to maximum gap and place the welder's tip between the belts edges (Fig. 16).
6. Allow the pliers to close so that the belt ends are in firm contact with the welder, until belt edges melt into a 0.5 ÷ 1.0 mm crown (Fig 17).
7. Open the pliers quickly and pull welder away (Fig. 18).



Avoid dragging melted material when pulling the welder.

8. Allow the pliers to Close so the belt ends are in contact with each other.



After welding, allow cooling time of 2 ÷ 5 minutes (depending on belt diameter).

9. Push the clamps to release the belt and trim melted residue with the trimmer.



Allow additional 10 minutes of cooling time before using the belt. The period of time can be shortened by using an air gun or water.

10. The VOLTA belt is now ready for long lasting and reliable use.

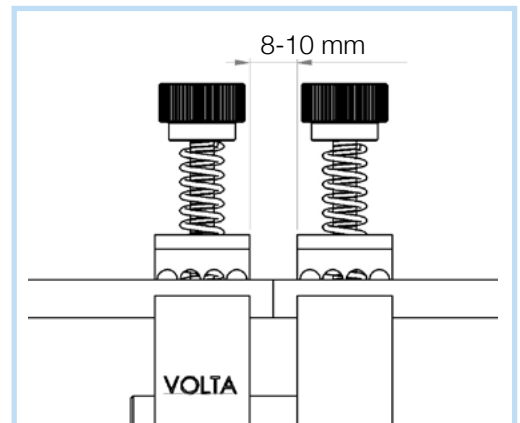


Fig. 14

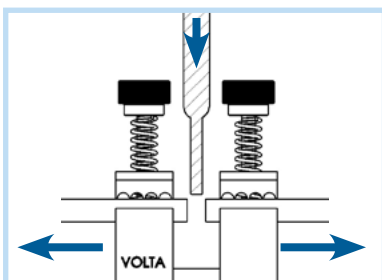


Fig. 16

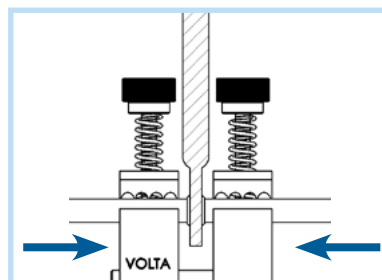


Fig. 17

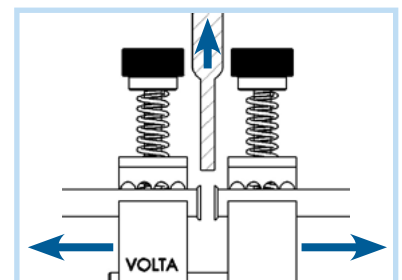


Fig. 18

Cleaning the Welder

1. Wipe the welder's tip with a dry cloth before the melt completely cools.
2. Only use a cotton cloth. Avoid using synthetic fabric or sharp-edged tools to remove material. These will damage the welder's Teflon coating.
3. Ensure that the Teflon coating is not scratched or peeled away.



Be careful when you remove the melted material from the welder's Teflon coated tip. The tip and the rod are extremely hot.

Maintenance

1. Make sure the welder's power cord is intact. If it is damaged after accidentally coming into contact with the welder's hot parts or sharp objects, have it replaced by qualified service personnel.
2. Wipe the Clamp with a cotton cloth after use, removing any residue.
3. Wipe the Clamp's guides with a cotton cloth.
4. Apply a small quantity of machine oil to moving parts at regular intervals.
5. To ensure quality welding always keep the welder tip clean.
6. To ensure clean accurate and reliable welds the Teflon coating on the welder's tip must be maintained in good condition.
7. Before replacing the tip unplug the welder and ensure that it has completely cooled off.

With Volta Tools You Can Never Go Wrong!

- ✓ Fast and simple belt installation.
- ✓ Unique and versatile design - compact, rugged and easy-to-use.
- ✓ Designed for both shop and field use.
- ✓ Light-weight construction.
- ✓ Usually does not require cooling water or air pressure.
- ✓ Convenient design and method of storing and carrying your tools.
- ✓ Welds and fabrications are strong, reliable and will last as long as your belt life.

