



# VOLTA Belting Technology Ltd.

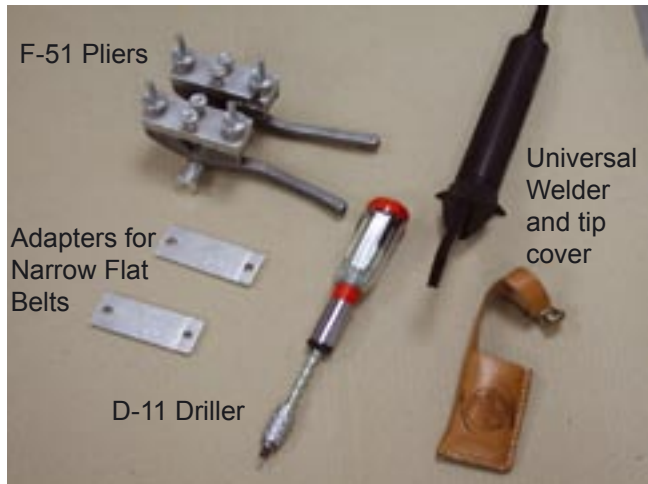
## VaR Butt Welding Instructions

The following instructions apply to welding VOLTA VaR belts using the F-51 Pliers.

### TOOLS:

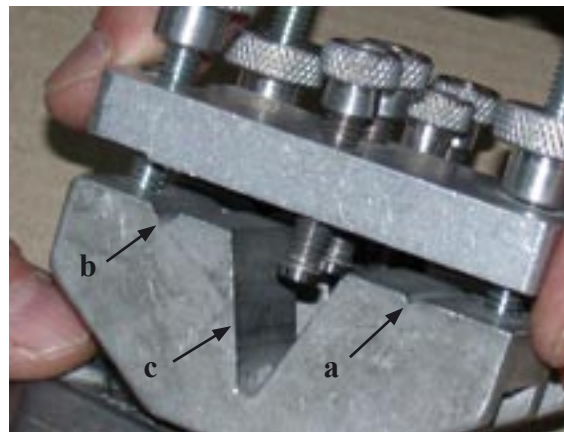
- F-51 Pliers - (shown with \* Adapters for Narrow Flat Belts)
- WU-1 or WU-2 Universal Welder (shown with tip cover)
- D-11 Driller (shown with bit mounted) - The D-11 Driller comes with three bits of different diameters. Refer to the relevant VOLTA Technical Data Sheet for the correct bit for each diameter profile to be welded.
- Lowe Belt Snipper (not shown)

\* Adapters for Narrow Flat Belts - These are not used when welding VaR belts.



1. Using the Lowe Belt Snipper, cut the belt to the desired length. Both ends should be cut straight.

1a. Plug the Welder in and allow to preheat for at least 5 minutes prior to welding.



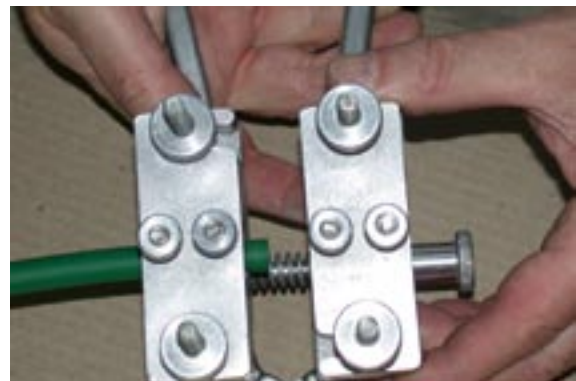
2. The F-51 Pliers has several grooves designed for different profiles and dimensions. Select the correct groove for the profile to be welded.

Recommended profile dimensions are:

a = Round belts 2,3,4 mm ; b = Round belts 5,6,7,8 mm ;  
c = Round belts 9 mm and larger and V profiles



3. When welding reinforced V and Round profiles, place one end of the belt in the Pliers (as shown above) so that the end protrudes 5-10 mm from the Pliers. Using the D-11 Driller and correct diameter bit, clear the reinforcing cord to the depth of the bit. Repeat for opposite end of belt.



4. After clearing the reinforcing cord from both ends of the belt mount the two belt ends in the F-51 Pliers. The Pliers are designed as normally open.



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**5.** Check the positioning of the belt ends. They should be straight and create a consistent line when the Pliers are closed. The amount that the belt ends extend is determined by the diameter of the belt. A trial run will help determine the correct amount for accurate welding.



**6.** After the welder has preheated, set the Welder tip between the two belt ends and close the Pliers. Apply slight pressure so that the belt ends melt and form a flash of equal size and shape on both belt ends.



**7.** When flash has developed on each belt end, open the Pliers, remove the welder and close the Pliers. This action should be performed in a smooth, gentle motion without any delay.



**8.** Lock the Pliers in the closed position with the side nut and allow the weld to cool to room temperature. This should take approximately 5 minutes. You can use air pressure to cool the belt quicker.



**9.** When the belt has cooled, remove it from the Pliers and trim the flash. (Photo at far left shows the welded belt before trimming.) It is possible to use a small sander or grinder to smooth and clean the joint surface.