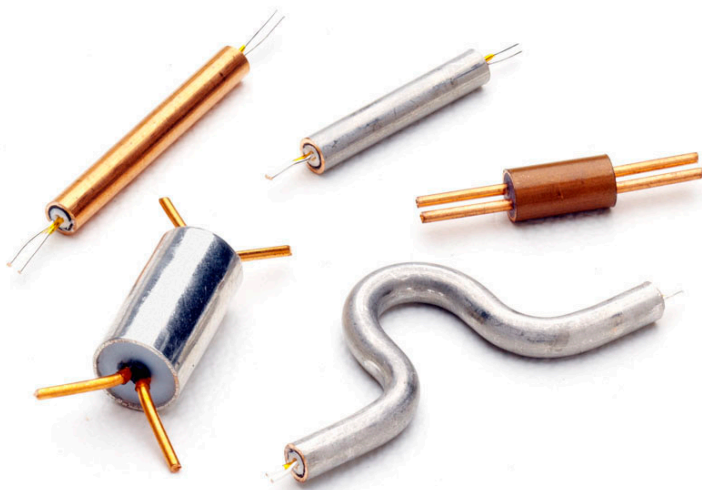


# Stripping Procedures for Bulk WIRELINE® Hybrids & Couplers



## Step 1: Preparing the Segment Length

Using a sharp blade or saw:

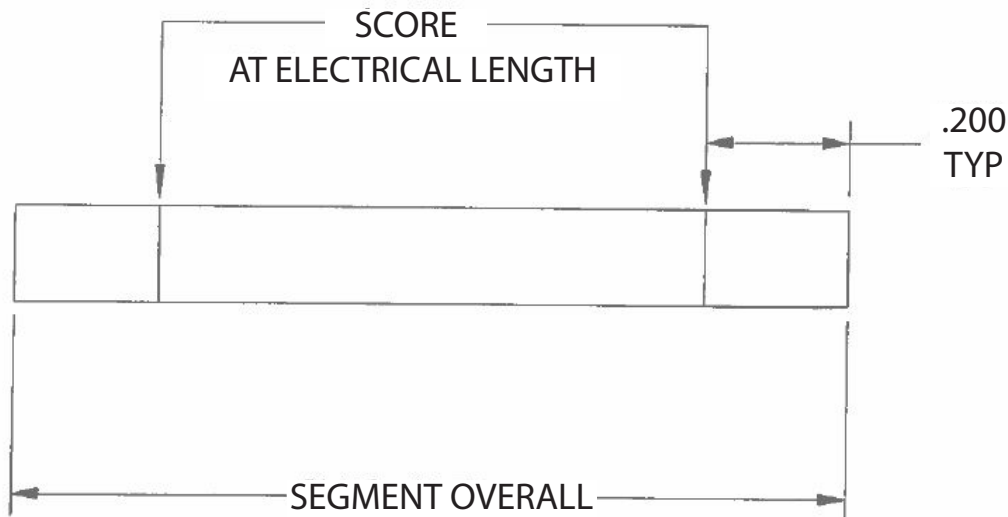
Allowing for required jacket length (calculated based on electrical frequency) and typical lead length of 0.200 inches on each end, cut the 5 foot bulk length into individual segments for stripping.

## Step 2: Removing the Outer Jacket

Using a sharp blade:

Take an individual segment, center the actual jacket length and then roll the material under the blade creating a “score” which penetrates the outer jacket (see Figure 1). Be careful not to cut deeply into the Tefzel™ (Du Pont) dielectric.

FIGURE 1



Using the specified thermal strippers:

Gripping the WIRELINE body with your fingers and the scored section with a set of pliers, crack the other jacket along the score mark.

Set the dial on the strippers to the midpoint setting (5-5 1/2 for Meisei, 50-55 for Stanley).

**MAINTAIN PROPER VENTILATION AT ALL TIMES AS MATERIAL FUMES CAN BE TOXIC.**

Hold the WIRELINE body with one hand, (for short lengths, a glove will prevent burns), and grasp the scored end with the thermal strippers.

As the outer jacket expands, due to the heat from the strippers, it will slide off the Tefzel quite easily.

### **Step 3: Temperature Cycling (Optional)**

The electrical performance of WIRELINE is tightly controlled and the manufacturing process used to accomplish this produces stresses in the core which tend to equalize by cold flow after the WIRELINE is cut to length. It is therefore advantageous to stress relief or precondition WIRELINE per the following table:

STEP	TEMPERATURE	TIME
1	Room Temperature (25 °C) to -65 °C	15 minutes
2	-65 °C dwell	1 hour
3	-65 °C to +140 °C	30 minutes
4	140 °C dwell	1 hour
5	140 °C to Room Temperature (25 °C)	15 minutes

*Repeat this cycle 2 times for a total of 3 temperature cycles.*

### **Step 4: Removing the Tefzel Dielectric**

*Using the thermal tweezers:*

Place the Tefzel portion of the WIRELINE through the blades of the thermal tweezers up to the outer jacket, as shown in Figure 2 on the next page.

Squeezing the tweezers lightly, roll the WIRELINE to melt through the Tefzel as close as possible to the jacket.

The gap on the closed tweezers must be adjusted so that the inner conductors are not scored.

Once the Tefzel has been melted through to the inner conductors, remove by firmly pulling while holding the tweezers closed.

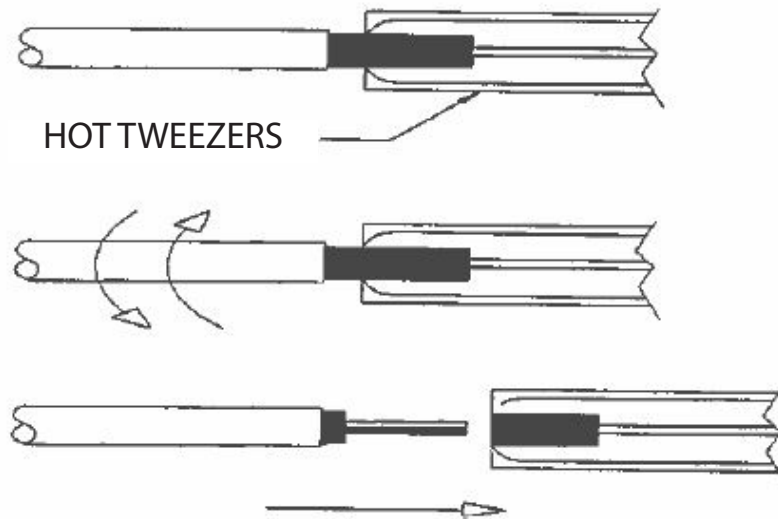
Release the tweezers between operations. This is necessary to maintain the proper temperature and prevent melting of the Kapton™ (Du Pont) insulator on the inner conductor. (Use of gloves is suggested while holding the WIRELINE body.)

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FIGURE 2



## **Step 5: Removing the Kapton Insulation**

*Using mechanical wire strippers:*

Bend the insulated wire lead 90° as shown in Figure 3, to allow room for removing the Kapton™ (Du Pont) tape.

Place the insulated wire lead into the C.K #3756 modified (grind the face back to the desired fixed strip length) strippers (AWG-30 for HC, AWG-26 for JC). Push the wire as far in as possible without damaging the un-insulated wire.

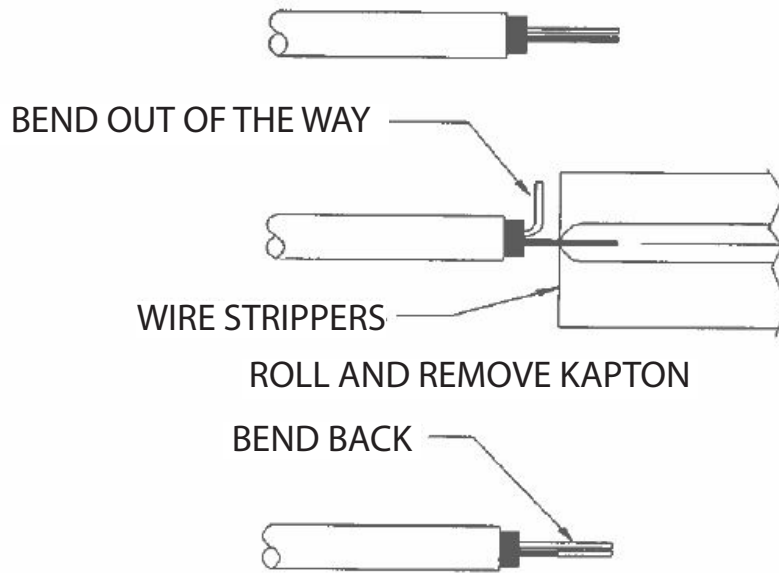
Rotate the wire both ways while gripping the wire strippers. The purpose here is to cut through and loose the Kapton™ (Du Pont).

While holding the wire strippers shut, remove the Kapton™ (Du Pont) by pulling the wire away from the wire strippers.

Bend the un-insulated wire back to its original position. *This wire should only be bent and unbent once in the removal operation as excess bending will reduce mechanical integrity of the wire.*

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FIGURE 3



### **Step 6: Cleaning the Finished WIRELINE (Optional)**

All WIRELINE pieces may be suspended in a vapor degreaser for up to 3 minutes to remove any foreign matter. Wiping pieces clean with alcohol or acetone is also acceptable, but WIRELINE SHOULD NOT BE IMMERSSED IN ANY SOLUTION AT ANY TIME.

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## **Additional Information**

As an alternative to your manual in-house stripping of bulk WIRELINE, pre-finished units can be obtained from API Technologies which are stripped via a laser processing technique. This value added process allows you to receive units with precision cuts and dimensioning on the Tefzel™ (Du Pont) dielectric and Kapton™ (Du Pont) insulator, which are ready to simply solder into your application. We would be happy to address any questions and provide a quotation upon request.

Electrical, mechanical and environmental parameters are detailed in our comprehensive WIRELINE® and WIREPAC® product bulletins. The product bulletins and a calculator for exact jacket lengths based on your operating frequency can be found on API's website.

Contact API Technologies directly with any questions.

**888.553.7531**

***www.apitechnologies.com***

***www.spectrummicrowave.com***

WIRELINE and WIREPAC are registered trademarks of API Technologies.  
Tefzel is a registered trademark of Du Pont.  
Kapton is a registered trademark of Du Pont.

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## Suggested Tools

In order to assist you in obtaining the tools necessary to perform the operations described herein, we are pleased to offer the following list of suggested tools and their vendors.

### TEFZEL REMOVAL

Manufacturer	Suggested Tools
Assembly Technologies International, Inc. (American Beauty Line) 1177 West Maple Road Clawson, MI 48017	1. Power Control Unit #105-A3T 2. Tweezer Type Wire Strippers #10517
Meisei Corporation 3350 Willow Lane Westlake Village, CA 91361 Tel: (805) 497-2626 Fax: (805) 494-1769	1. Model M-10 Power Supply 2. #4C Hot Tweezers

### KAPTON REMOVAL

Manufacturer	Distributor	Suggested Tools
Carl Kammerling International Ltd. Glanydon Industrial Estate PWLLHELI LL53 5LH United Kingdom Tel: +44 (0) 1758 701070	Hub Material Co. Tel: (781) 821-1870 Fax: (781) 821-4133	1. Nickless Wire Strippers A. For HC WIRELINE: C.K#3756 (30 AWG)  B. For JC WIRELINE: C.K#3756 (26 AWG)
Assembly Technologies International, Inc. (American Beauty Line) 1177 West Maple Road Clawson, MI 48017	Stanley Supply & Services Tel: (978) 682-9844 Tel: (800) 225-5370	1. Tweezer Type Strippers #105131

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