



Stripping Procedures for Bulk WIRELINE[®] Hybrids & Couplers



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STEP 1: PREPARING THE SLUG 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 “slugs” for stripping.

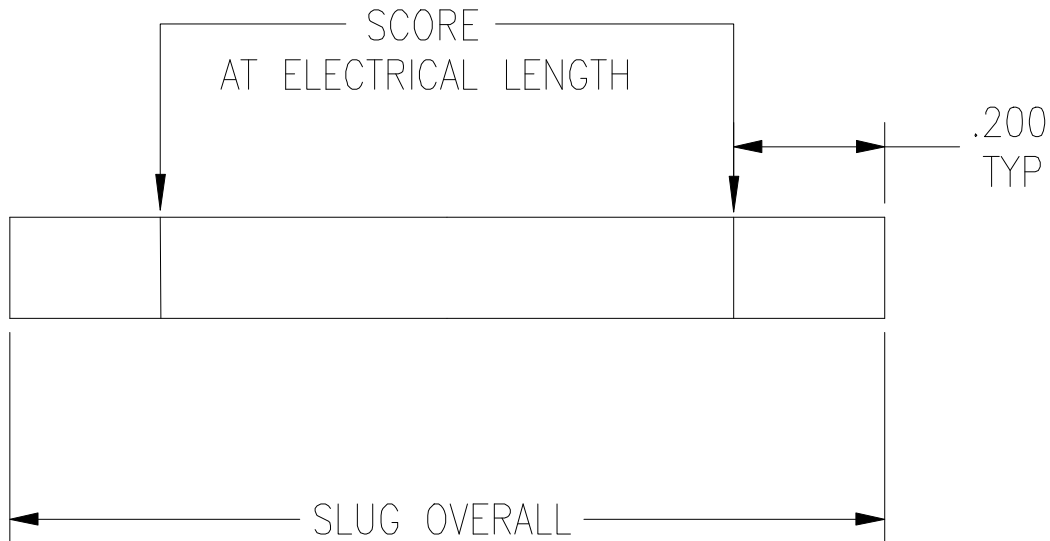
STEP 2: REMOVING THE OUTER JACKET

Using a sharp blade:

Take an individual “slug”, 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 outer jacket along the score mark.

Set the dial on the strippers to the midpoint setting (5-5 ½ for Meisei, 50 - 55 for American Beauty).

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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™ (Du Pont) 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™ (Du Pont) 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™ (Du Pont) as close as possible to the jacket.

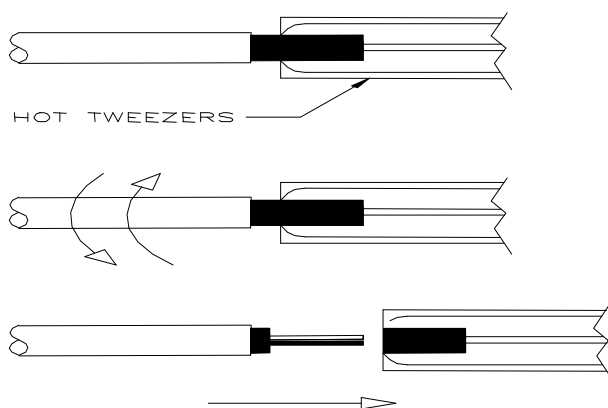
The gap on the closed tweezers must be adjusted so that the inner conductors are not scored.

Once the Tefzel™ (Du Pont) 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.

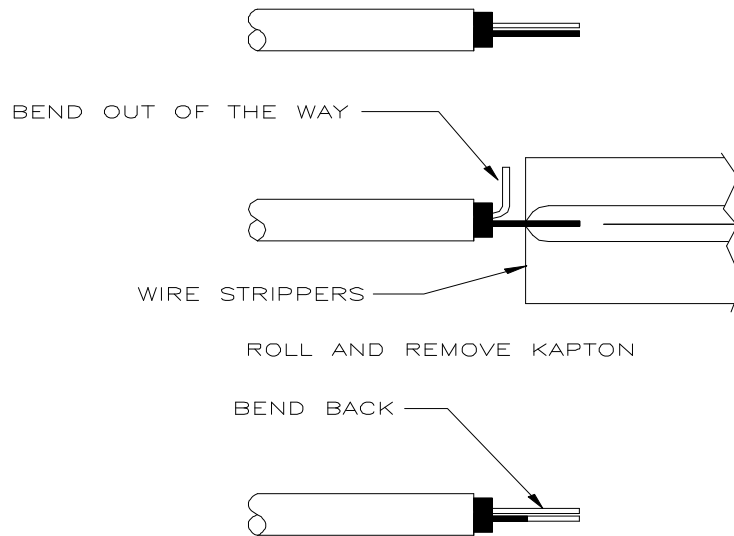
Rotate the wire both ways while gripping the wire strippers. The purpose here is to cut through and loosen the Kapton™ (Du Pont).

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 Sage 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 **WIRELINE⁰ and WIREPAC⁰** Product bulletins. The product bulletins and a calculator for exact jacket lengths based on your operating frequency can be found on Sage's website.

Quotations and any additional information is available upon request from your area field sales representative or the Sage Sales Department. Contact Sage Laboratories directly via phone, fax or visit our Web site:

Address:	8 Executive Drive Hudson, NH 03051
Telephone:	603-459-1600
Facsimile:	603-459-1605
Web site:	www.filss.com

WIRELINE and WIREPAC are registered trademarks of Sage Laboratories, Inc.
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	Distributor	Suggested Tools
Assembly Technologies International, Inc. (American Beauty Line) 1177 West Maple Road Clawson, MI 48017	Contact East Tel: (978) 682-2000 Fax: (978) 688-7829	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 Kämmerling GmbH & Co. (C.K) Postfach 100240 D-42002 Wuppertal Germany Tel: (0) 2 02-8 00 34 Fax: (0) 2 02-8 07 15	Hub Material Co. Tel: (781) 821-1870 Fax: (781) 821-4133	1. Nickless Wire Strippers A. For HC WIRELINE: C.K#3756 (30 AWG) Catalog #2101 B. For JC WIRELINE: C.K#3756 (26 AWG) Catalog #2103
Assembly Technologies International, Inc. (American Beauty Line) 1177 West Maple Road Clawson, MI 48017	Contact East Tel: (978) 682-2000 Fax: (978) 688-7829	1. Tweezer Type Strippers #105131

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