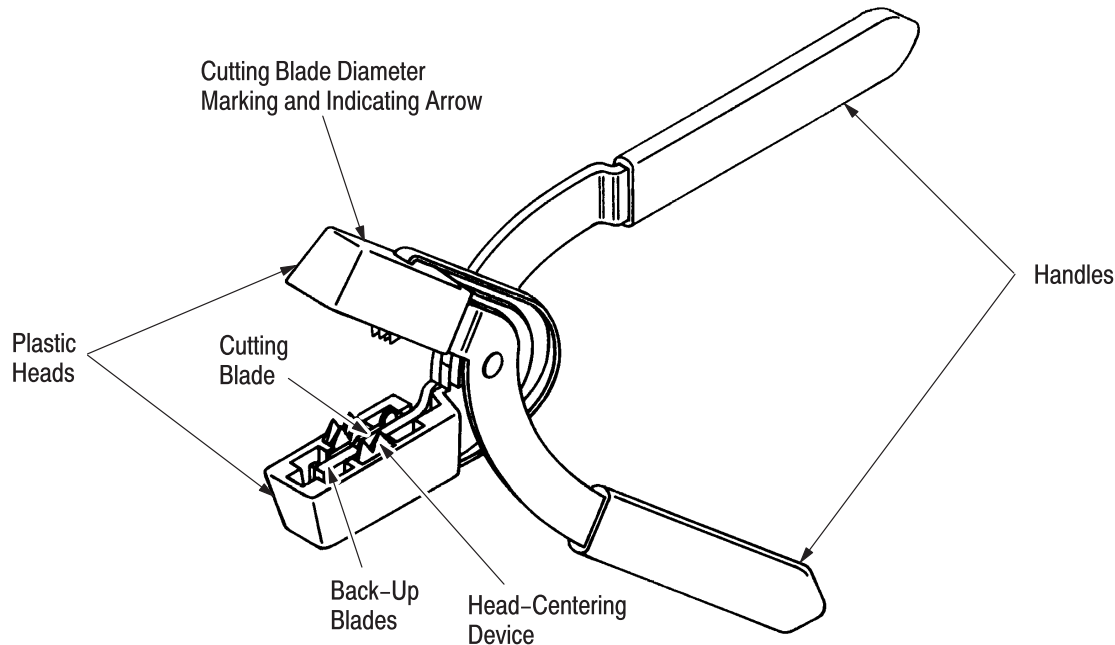


## PROPER USE GUIDELINES

Cumulative Trauma Disorders can result from the prolonged use of manually powered hand tools. Hand tools are intended for occasional use and low volume applications. A wide selection of powered application equipment for extended-use, production operations is available.



| FIBER SIZE<br>( $\mu\text{m}$ ) | TOOL CUTTING MIN<br>DIAMETER ( $\mu\text{m}$ [In.]) | TOOL PART<br>NUMBER | TOOL HANDLE<br>COLOR CODE |
|---------------------------------|---|---------------------|---------------------------|
| 125                             | 203 [.008]  | 504024-1            | Red                       |
| 140                             | 305 [.012]  | 504024-3            | White                     |

Figure 1

## 1. INTRODUCTION

This instruction sheet covers the use of Fiber Stripping Tools 504024-1 and 504024-3, which are used to remove the buffers from optical fibers before applying OPTIMATE\* Fiber Optic Connectors. A typical tool is shown in Figure 1. Read these instructions thoroughly before stripping any optical fibers.

### NOTE



All dimensions on this document are in metric units [with U.S. customary units in brackets]. Figures and illustrations are for reference only and are not drawn to scale.

Reasons for reissue are provided in Section 5, REVISION SUMMARY.

## 2. DESCRIPTION (Figure 1)

The fiber-stripping tool features color-coded handles, plastic heads, a plastic head-centering device, cutting

blades, back-up blades, and a cutting blade diameter marking and indicating arrow.

The tool handles are color coded by cutter hole size for easy tool identification. The plastic heads make contact with the fiber buffer and support the fiber on both sides of the cutting blades. The plastic head-centering device centers the fiber to enable precise buffer scoring and removal.

The cutting blades score the buffer completely around the fiber. The back-up blades support the cutting blades, and "lock up" when the tool is closed to maintain concentricity.

## 3. FIBER CONSTRUCTION

To strip the fiber buffer properly, the operator should be familiar with the stripping tool components and their functions. In addition, the operator should be aware that fiber construction and strippability vary from fiber to fiber.

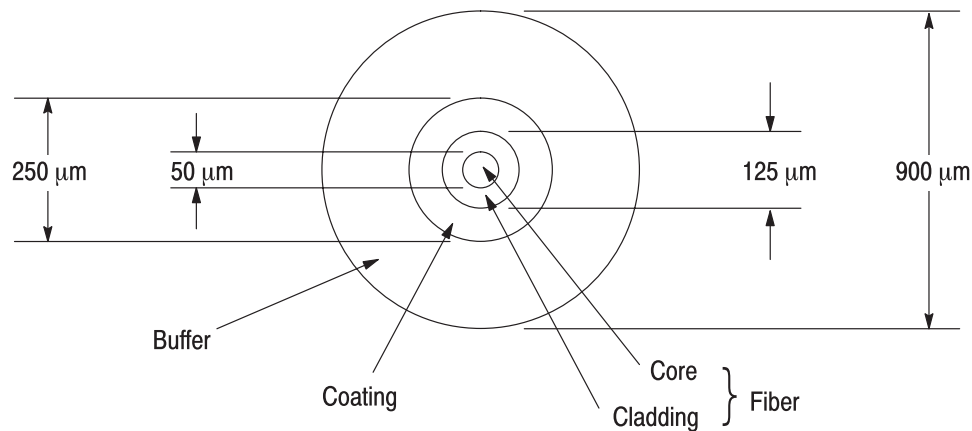
**Typical Fiber Construction**

Figure 2

The typical construction of a tight-buffer fiber is shown in Figure 2. While the buffer on some fibers may be loose and easily removed, other fibers may have a much tighter buffer, allowing only small lengths of buffer to be removed at a time. In very rare instances, the buffer can only be removed chemically, using common paint remover.

**NOTE**

*Fiber Stripping Tools 504024-1 and 504024-3 are intended for stripping tight-buffered fiber only.*

As the operator gains experience by using the stripping tool with a variety of different fibers, removing the buffer will become easier.

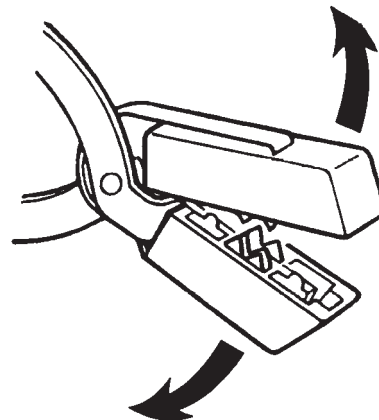
**4. FIBER-STRIPPING PROCEDURE**

To use the stripping tool, refer to Figure 1 and select the appropriate tool for the fiber being used.

Refer to the specific connector instruction sheet or strip length template card in Kit 501818-1 for the required buffer strip length. Mark the buffer at the specified length.

Proceed as follows:

1. Open the tool and carefully pull each plastic head back to be sure that the cutting area is free of any foreign material. Perform this step frequently while the tool is in use.
2. After visual inspection of the cutting area of the tool, hold the tool with the marking on the tool head facing up. The arrow on the tool head should face the fiber end.
3. Open the tool with one hand ONLY.



4. Hold the buffered fiber very tightly between the thumb and forefinger. Place the tool on the fiber, making sure to insert the fiber through the “vees” in the plastic heads. The tool should be perpendicular to the fiber, and the fiber should extend through the other side of the tool approximately 6.35 mm [.250 in.].

**NOTE**

*If the buffer is very tight on the fiber, a small piece of lapping film, 12.7 mm [.50 in.] wide, by 25.4 mm [1.00 in.] long, held between the thumb and forefinger will give additional holding power.*

5. Gently squeeze the handles until the tool bottoms. Hold the handles in this position.

6. While holding the buffered fiber tightly, pull the tool along the fiber, toward the fiber end.

**NOTE**

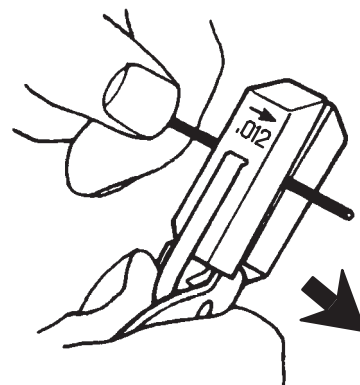
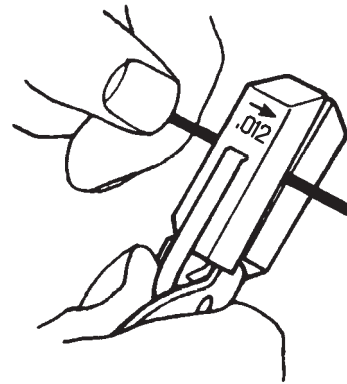
*Due to many variables in the use of No-Nik strip tools, it is recommended to periodically inspect tools by one or both of the following methods.*

***Visual:** With a 30X microscope, the stripping hole and blades can be examined for misalignment of blades and any chipped or rough sections in the stripping hole.*

***Pin Gauge:** If a microscope is not available, a pin gauge can be used as a go/no-go test device. The pin gauge should be sized at 0.005 mm [.0002 in.] under the actual stripping diameter size of each No-Nik. For No-Nik 0.20 mm [.008 in.] stripper, a 0.198 mm [.0078 in.] pin gauge should be used, and for the 0.30 mm [.012 in.] No-Nik, a 0.300 mm [.0118 in.] diameter pin gauge. If tool fails test, discontinue use and replace tool.*

**NOTE**

*Carefully examine fiber for any nicks or scratches. If any are found, or if the fiber has broken, the cutting diameter of the tool you are using was probably too small. Try the next larger size stripper and repeat Steps 1 through 6.*



If the fiber strips easily, longer strip lengths (up to 19.05 mm [.750 in.]) are possible.

Given sufficient practice and skill, using the fiber-stripping tool will provide accurate stripping of optical fiber. To strip the fibers consistently:

- Hold the fiber tightly.
- Pull the tool as straight as possible toward the fiber end.
- Do not try to remove too much buffer at one time.
- Clean the tool after each strip by pulling back on each plastic head, then letting the head snap back into position. If fiber breaks during stripping procedure, check for debris in the plastic head. This debris may prevent proper tool operation.

– Be sure to clean the blade area of the tool thoroughly after each use. Before storing the tool, remove any debris that has accumulated in the cutting area.

## 5. REVISION SUMMARY

Since the previous release of this sheet, the following changes were made:

- Updated document to corporate requirements
- New format
- Deleted obsolete part number 504024-2 and related information
- Deleted NOTE in Section 4, FIBER-STRIPPING PROCEDURE