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# **AUTOMATIC ONE-STEP CLEAVER**

#### **Features**

- Automatically rotates blade and collects fiber scraps
- One step easy-to-use design
- Lightweight and rugged design for long term durability
- Average cutting angle of less than 0.5°
- 52,000 cleaves blade life before needing to be replaced

# **Applications**

- Easy preparation of fiber ends before splicing
- Consistent cleaves from fiber to fiber

## **Product Description**

The FSP-100-CLV is an easy-to-use cleaver for providing consistent, automatic cleaves of optical fibers. It provides repeatable cleaves of 125 µm bare fibers, with coating diameters up to 900 µm. The cleaved angle is less than 0.5°, which is well suited to subsequent splicing of fibers. Its light weight and wide operating temperature make it ideal for field or lab use.

# **Specifications**

Part number: FSP-100-CLV		
Bare fiber diameter	125 µm	
Coating diameter	0.25 ~ 0.9 mm	
Fiber type	Single core fiber	
Cleaved length	5 ~ 16 mm	
Cleaved angle	0.5°	
Blade life	52000 times	
Mode	Automatic	
Dimensions	103 mm(W) × 93 mm(D) × 47 mm(H)	
Weight	340 g	
Color	Black	
Package	Fiber Cleaver with Dustibin, User Manual, Carrying Case	
Operating Temperature	−10 °C~ +50 °C	



FSP-100-CLV Cleaver (closed)



(open)



FSP-100-CLV Cleaver with carrying case

### **Ordering Information For Standard Parts:**

Bar Code	Part Number	Description
77984	FSP-100-CLV	Precision fiber cleaver for fusion splicing, with automatic blade rotation for maximum lifetime.

### **Ordering Examples For Standard Parts:**

A customer needs to fusion splice some short patch cords onto the ends of some spools of fiber that she is testing. She already has a fusion splicing machine, but she needs a cleaver in order to obtain consistent, flat endfaces prior to splicing the patch cords to the spools. By ordering the FSP-100-CLV, she will be able to obtain the quality cleaves that she requires.:

Bar Code	Part Number	Description
77984	FSP-100-CLV	Precision fiber cleaver for fusion splicing, with automatic blade rotation for maximum lifetime.

#### **Questionnaire:**

- 1. What type of fiber do you need to cleave? What are the core/cladding/coating diameters?
- 2. Is the application for preparing fibers for splicing, or is it to prepare the fiber ends for some other application?
- 3. What is the range of wavelengths that you plan on passing through the fiber?

## Frequently Asked Questions (FAQs):

- Q: Why do I see a high level of backreflection from my fiber after cleaving the end?
- A: Since the cleaver produces a flat endface which is perpendicular to the path of the light, approximately 4% of the light will be reflected when the light reaches the glass/air interface. This is to be expected, and it is due to the difference in the index of refraction of the glass and air.
- Q: If I have two fibers which have both been cleaved, can I mate them together in a ferrule?
- A: Cleaved fibers cannot be expected to mate together. Even the tiniest difference in the cleaved angle or mating angle will prevent the two endfaces from properly mating together. Even a minuscule air gap will cause light to reflect from not just one surface, but from both surfaces of the mating ends, with extremely large reflections. Furthermore, etalon effects could occur, which will lead to fluctuations in the coupled light.