

# AD450 Optical Fiber Fusion Splicer

## Product overview

Obtaining 16 patents of invention and 58 technical innovations, a brand-new product—AD450 Optical Fiber Fusion Splicer is launched, thanks to 5 years of painstaking research of 28 engineers.

AD450 implements industrial-grade CPU+FPGA structure of high-performance, completely fresh HD optical fiber microscope, imported high-speed motor and aluminum-magnesium alloy materials extensively. Compared with AD350, our star product, AD450 lowers the size by 38%, the weight by 52%, the power consumption by 57%, but improves the speed by 60%, the environment adaptability by 80% and the reliability (MTBF) by 200%. You can get unprecedented fusion splicing experience.



## Main characteristics

Precise fiber core alignment, ultra-low fiber fusion splicing consumption

7s fast fusion splicing, 18s highly efficient heating.

320 times image magnification, 5mm fusion splicing for fibers of ultra-short cutting length

300 groups of fusion splicing modes, 100 groups of heating modes

10000 groups of fusion records, 64 images storage

Ceramic presser foot, ceramic V-block, all-in-one fixture

Dual-direction splicing, automatic splicing, intelligent pyrocondensation

USB and SD card interfaces, U-disk automatic software upgrade

Built-in modular lithium battery, supports 220 times of splicing and heating cycles.

### **Small and light**

Small in size and light in weight, the splicer is easy to carry and can be lift by one hand.



Lift it by one hand

### **Water-resistant, dust-resistant and shock-resistant in design**

Water-resistant and dust-resistant can meet IP52 requirements.



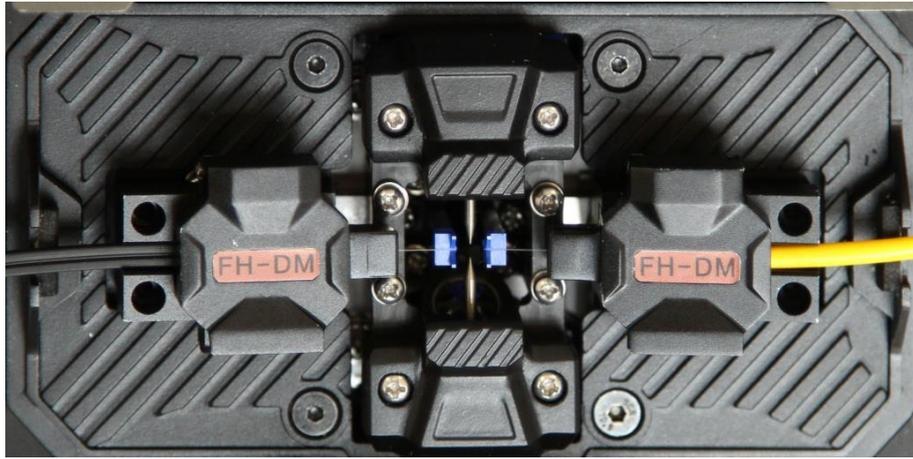
Water-resistant test



Dust-resistant test

### **All-in-one fixer**

The all-in-one fixture meet fusion splicing demands of multiple fibers, jumpers and rubber-insulated wires with a cladding diameter of 80~150  $\mu$  m.



All-in-one optical fiber fixture

### Graphical interfaces and touch screen

AD450 uses entirely new GUI graphical interfaces and touch screen in design. Operators can set up the splicer and get to know relevant information of it simply and directly by graphical interfaces.



Entirely new GUI graphical interfaces and touch screen

### Intelligent heat shrinkage

A detection unit is embedded in the heater. The heating function will only be enabled when the thermal shrinkage tube is put in the heater, to avoid misoperation.



Hear and detection unit

### Large-capacity pluggable lithium battery

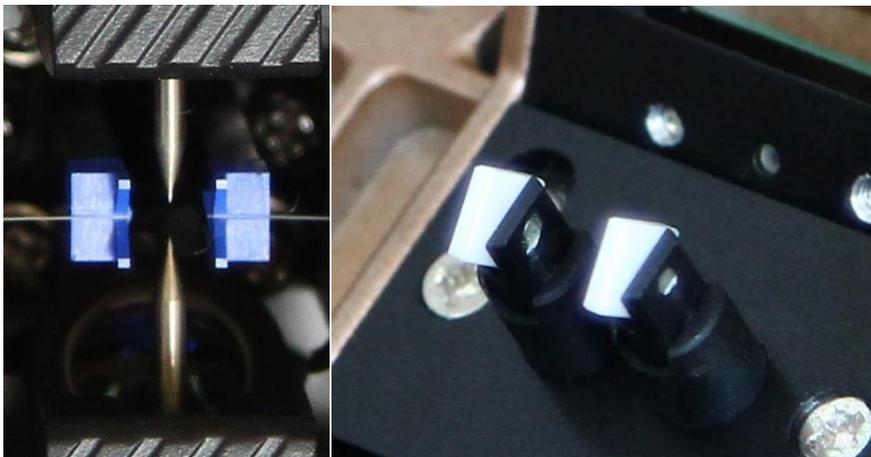
The built-in pluggable lithium battery with large capacity can answer working demand lasting all day long (typical 220 times of fusion splicing and heating cycles).



Built-in pluggable lithium battery with large-capacity

### Ceramic V-block and ceramic presser foot

Ceramic V-block with high precision brings you convenient and accurate placement of optical fibers and makes cleanup easy.



High-precision ceramic V-block and presser foot

**Technical specifications**

Model	AD450
Alignment method	Precise core alignment and cladding alignment
Applicable fibers	Any common optical fibers, rubber-insulated fibers and jumpers that meet requirements of ITU-TG.651~653, ITU-TG.655 and ITU-TG.657.
Optical fiber diameter	Cladding: 80~150 $\mu$ m, coating layer: 0.1~3mm
Cutting length	5~16mm (coated optical fiber diameter $\leq$ 250 $\mu$ m); 10mm (coated optical fiber diameter: 0.25~3mm)
Fusion splicing consumption (typical value)	0.02dB (SMF); 0.01dB (MMF); 0.04dB (DSF); 0.04dB (NZDSF)
Return loss	Better than 60dB
Fusion splicing time (typical value)	7s
Heating time (typical value)	18s
Pulling force test	1.96~2.25N
Thermal shrinkage tube	60mm, 40mm and a series of thermal shrinkage tubes
Graphical display	High-performance 4.3 inch LCD
Magnification time	320 times/88 times
Fusion splicing record	10000 groups
Battery capacity	11.1V, 6400mAh, typical value of fusion splicing and thermal cycle is 220 times
Battery service life	Cycle charging times reach 300~500, can be replaced by customers
Electrode service life	Typical value is 4000 times, can be replaced by customers
Construction lighting	Built-in lights with high-brightness and wide lighting area
Working environment	Temp:-10~50 $^{\circ}$ C; hum: 0~95%RH, height above sea level:0~6000m
Operation interfaces	GUI graphical operation interfaces
External power	AC: AC100~240V, 60Hz, 0~1.5A; DC: DC10~15V
External port	USB / SD
Dimensions	120mm (W) $\times$ 130mm (H) $\times$ 154mm (D) (without rubber anti-vibration pad)
Weight	1.59kg (host engine), 0.37kg (battery)