

Lens Forming Station

The 3SAE Lens Forming Station allows users to process fiber for the formation of a ball or lens of a user determined target diameter. Utilizing precision mechanical design, coupled with high contrast optics and absolute control of fiber alignment, the 3SAE Lens Forming Station offers ultimate ease of operation with high accuracy and repeatability.

The image processing software package allows the user to view, in real time, the progress of a fiber in process. Automatic measurement software allows “one button” style operation for an end user while allowing ultimate customization of recipes from an engineer level.



The 3SAE Lens Forming Station software functions in two modes: “ball” or “flash.” When in “ball” mode, engineers can optimize a recipe to obtain a desired ball or lens diameter by setting target diameter and threshold limits as well as utilizing 3SAE's Effective Area Radius measurement functions within the software parameter settings. Additionally, limits can be set to ensure that fiber of proper diameter is being loaded by an operator and that the fiber is properly stripped before allowing the process to begin.

In “flash” mode, the software will execute a number of arc cycles in order to cause a subtle rounding of the edges of the cleaved fiber.

The 3SAE Lens Forming Station software will automatically measure a loaded fiber and select the correct flashing program for the measured fiber diameter. Then, it will run a flash procedure based on engineer adjusted variables. Limits for 3 different ranges of fiber diameter can be established, each of which can have a separate arc level.

Once a recipe has been established, all adjustable parameters can easily be locked out by the engineer, offering simple “one button” style control to the end operator. When fiber process finishes, the user is automatically alerted of pass/fail status based upon engineer determined criteria.

The 3SAE Lens Forming Station supports fiber diameters from 125 μm to 600 μm (clad O.D.), coating diameters up to 900 μm .

Features

- Patented Ring of Fire® three electrode system combines proven manufacturing-stable technology, yielding an large area plasma field monitored 300 times per second for industry leading field-temperature stability.
- 3SAE proprietary-alloy electrodes couple extended life with high thermal power generation and low maintenance/cost.
- The electrodes generate negligible tungsten deposits and require no specialized shielding gas.
- Patented Ring of Fire® repeatability and stability is ideally suited for manufacturing or large scale production.

Technical Specs

Dimensions: 333 (W) x 224 (D) x 353 (H) mm (without adjustable feet)

Optical: 2 Mega pixel, B+W camera with Dual telocentric 2X lens and intensity controllable LED backlight.

Alignment: 5mm of X and Y alignment, rotational fiber holder (theta) and 90 mm of stroke in Z axis, fixed vacuum V groove.

Power Source: 1 - 15VDC@90W, 1 – 24VDC@150W

Control / Operation: Each system ships with PC system with Windows Operating System, Serial communication to 3SAE Lens Forming Station mother board, USB 2.0 video, LFS Executable Software and a 23" – 1920 x 1080 High res wide screen monitor.

Standard Package and Accessories

Product	Part Number
Lens Forming Station	LFS-01-0100
Standard Package	
Ball Lensing Station Holder	N/A
15V Power Supply	ACC-01-0142
24V Power Supply	ACC-01-0144
3SAE Automatic Electrode Cleaner	ACC-01-0143
Optional Components	
Magnetic Brass Electrode Holders (Set of 3) for ROF	LDS-01-0094
Electrode Sharpening Wheel (Pack of 25)	SPT-10-0761
Electrodes ROF (Sold Individually)	SPT-10-1638